School of Psychology

The Impact of Therapy Process on Outcomes for Families of Children with Disabilities and Behaviour Problems Attending Group Parent Training

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Declaration

To the best of my knowledge and belief this thesis contains no material previously published by any other person except where due acknowledgement has been made.

This thesis contains no material which has been accepted for the award of any other degree or diploma in any university.

Signature: …….

Date:……..

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Abstract

Despite the positive effects found for both parents and children following different parent training interventions, a significant proportion of families fail to experience successful outcomes (Assemany & McIntosh, 2002). High drop out rates, poor parental engagement and participation, and failure of families to maintain long term benefits after an intervention are common problems (Assemany & McIntosh, 2002; Littell, Alexander, & Reynolds, 2001; Miller & Prinz, 1990). Although a large body of literature exists supporting the efficacy and effectiveness of parent training programs for both typically developing children and children with disabilities, little is known about the mechanisms of change or the processes that create change in treatment (Kendall & Choudhury, 2003). This study investigated therapy process and its impact on outcomes for families of children with disabilities attending a group-based behavioural family intervention known as Stepping Stones Triple P program (SSTP). Study 1 examined the impact of both within session therapy process variables (working alliance, client satisfaction) and between session therapy process variables (homework completion, attendance) on child behaviour problems and parental adjustment. Participants included 15 groups (n = 79) of parents, each with a child with an intellectual disability and parent reported child behaviour problems. Parents completed the Homework Rating Scale, Working Alliance Inventory, and the Client Satisfaction Questionnaire. Child behaviour outcomes were measured by the Developmental Behaviour Checklist and changes in parental adjustment were measured by the Depression Anxiety Stress Scale. A series of logistic regressions found parents working alliance scores significantly predicted reliable change in child behaviour problems and parental anxiety at post-test. Homework completion at session 3 significantly predicted reliable change in parents depression scores at post-test. Using a sub-set of participants from Study 1 (n = 36), Study 2 investigated the impact of parent

verbalisations on treatment outcomes. Parent-therapist interactions were coded according to the Therapy Process Code. Resistant and non-resistant parent verbalisations in combination were found to impact on parental anxiety scores at post-test. Parent resistant verbalisations were found to be significantly associated with reductions in parental depression at post-test. Study 3 (n = 71) examined the way families with a child with a disability behave during and respond to group-based parent training on a moment-to-moment basis using an Interpretative Phenomenological Approach (IPA). Results showed that parents of children with disabilities attending group-based parent training, experiences reflected six key themes including 1) advocating for child's behaviour, 2) dealing with other's reactions, 3) need for change, 4) its' hard work, 5) learning to cope and 6) the experience of success. The factors contributing to these results, implications for clinicians and directions for future research are discussed. Understanding therapy processes provides opportunities to expand and refine parent training interventions to better fit the need of difficult to reach families. Meeting the needs of a greater number of families is likely to have a positive effect on the individual child, family system, and the wider community.

CHAPTER ONE

Introduction

1.1 Thesis Overview

"Train a child in the way he should go, and when he is old he will not turn from it".

(Proverb 22: 6.)

Given the vast amount of attention that parenting theories and research have received in the last half of a century there is no doubt that parenting plays an important role in the developmental change and adjustment of children across the lifespan. Parenting is rewarding but is an enduring task that can be difficult from time to time, especially when children display challenging behaviours. Although many families cope well with the additional demands that these behaviours create, difficult times can still sometimes occur. Like all children, children with disabilities can develop challenging behaviours such as temper tantrums, destructiveness and non-compliance. Based on prevalence studies, challenging behaviour problems are one of the most common co-existing difficulties for children with disabilities (Einfeld & Tonge, 1996; Emerson, 2001; Quine, 1986). Challenging behaviours often become worse over time and persist into adulthood causing many negative secondary consequences for the individual, family and the wider community (Emerson, Robertson, Fowler, Letchford, & Jones, 1996; McGill, Papachristoforou, & Cooper, 2006; McIntyre, Blacher, & Baker, 2002; Ruef, Turnbull, Turnbull, & Poston, 1999; Tonge & Einfeld, 2003).

Given the frequency and associated burden that challenging behaviour problems can cause, researchers have identified a need for empirically supported early intervention programs (Emerson, 2001; Lonigan, Elbert, & Bennett-Johnson, 1998). Parenting programs designed to teach parents new skills and strategies to better manage their child's misbehaviour have been evaluated more extensively than other interventions, using many different family samples (Lundahl, Risser, & Lovejoy, 2006; Sanders, 1999). A greater emphasis has also been on the development and evaluation of group delivered interventions due to the associated social support and cost benefits (Seligman, 1993). Several well researched parenting programs for both typically developing children and children with disabilities exist, and have mostly demonstrated promising outcomes including reduced child behaviour problems, and increased parental confidence and self efficacy (Graziano & Diament, 1992; Roberts, Mazzucchelli, Taylor, & Reid, 2003; Webster-Stratton, 1990). The positive outcomes for both children and parents have typically generalised to other environments including home, school and community settings (Sanders & Markie-Dadds, 2002; Scott, 2002).

Although there is much research regarding the efficacy of parenting programs for both typically developing children and children with disabilities, little is known about the mechanisms of change, engagement variables, or the processes that create change in treatment. Despite a wealth of research regarding the processes of therapy with adults, these variables are yet to be explored thoroughly in the child and parent / therapist domain (Karver, Handelsman, Fields, & Bickman, 2005; Kazdin, 2000). The studies that do exist have had inconsistent definitions of therapy engagement and working alliance making comparisons across studies extremely difficult (Hoagwood, 2005). Much research in this area has failed to consider child outcomes and the relationship between the therapist and parent, and most of the findings have typically been based on parental responses from questionnaires only (Baydar,

Reid, & Webster-Stratton, 2003; Karver et al., 2005; Kazdin & Whitley, 2006; Nye, Zucker, & Fitzgerald, 1995). Currently there are no studies which examine parental engagement and the processes of change in families with a child with a disability. A greater understanding of engagement variables and the processes that create change will impact on the service delivery and content of parenting programs.

The broad aim of this study is to examine the impact of therapy process variables on treatment outcomes for parents with a child with a disability attending a group-based parenting program. Understanding how within session engagement variables (participant verbalisations, therapeutic alliance, client satisfaction), between session engagement variables (homework completion across sessions), and attendance impact on treatment outcomes will assist researchers and clinicians to provide a better quality service to families in need. Furthermore this study aims to understand the way families with a child with a disability participate within group sessions and respond to group-based parenting programs. Knowledge of parental resistance and verbal interactions will provide valuable insight into the experience of group-based parent training for parents with a child with a disability.

Until researchers make a greater effort to understand the processes of therapy and the mechanisms of change within different programs, many families may not gain the full benefit from intervention programs and the links between therapy and treatment outcomes will continue to be misunderstood.

1.2 Chapter Content

This chapter provides an overview and context for the foundation of the research presented in this thesis, outlining the key areas under investigation. Chapter two provides a review of the literature on challenging behaviour in children with disabilities. The extent, nature, and severity of challenging behaviour in children with disabilities will be discussed followed by a review of the impact of challenging behaviour on the individual, family, and the wider community.

Chapter three provides an overview of different intervention programs with an emphasis on group-based parenting programs designed for families with a child with a disability. Literature pertaining to alternative interventions besides parenting programs, including those designed for families with typically developing children, will be presented followed by a discussion of the benefits of parenting interventions in the disability field.

Chapter four presents research on the processes that create change in treatment and the current gaps in the parenting and child literature. Factors influencing attendance, treatment engagement, and participation are also explored. The chapter will highlight the need for new research in this area and the problems of separating and defining process variables in real world settings.

The research aims and rationale are drawn together in Chapter five. Chapter six presents Study 1 with a detailed description of the methodology, results and discussion. The methodology and results of Study 2 along with a discussion is presented in Chapter seven. Chapter eight presents Study 3 with a detailed description of the methodology, results and

discussion. Chapter nine draws the three studies together and discusses the limitations, strengths, implications for clinicians and directions for future research.

CHAPTER TWO

Challenging Behaviours in Children with Disabilities

2.1 Literature Review

The term "disability" is multifaceted and can include a diverse range of characteristics, factors and syndromes. The child and adolescent samples discussed in the literature in this thesis are heterogeneous and can be defined under the umbrella term of developmental disabilities. This term encompasses children and adolescents with intellectual disabilities, Autism Spectrum Disorder, Pervasive Developmental Disorder, developmental delays, acquired brain injury, and birth defects. The West Australian Disability Service Act defines disability as "a condition which is attributable to an intellectual, psychiatric, cognitive, neurological, sensory, or physical impairment or a combination of those impairments" (Alessandri, Leonard, Blum, & Bower, 1996, p. 119)

Children and adolescents with these disabilities frequently evidence challenging behaviours. Behaviours such as self-injury, aggression, non-compliance, tantrums, bullying, antisocial behaviour, eccentric habits, self-stimulation, inappropriate sexual behaviour, stealing, excessive over-activity and destructiveness are typically referred to as "behaviour problems" (Slevin, 1999). Challenging behaviour is a common term used to describe these behaviour problems in children with disabilities. However, other terms have also been used to describe these behaviours including externalising behaviours, delinquency, and diagnostic terms such as conduct disorder and oppositional defiant disorder (Marshall & Watt, 1999). Challenging behaviour is generally defined in the disability literature as:

> Behaviour of such intensity, frequency or duration that the physical safety of the person or others is likely to be placed in serious jeopardy, or behaviour which is likely to seriously limit or deny access to and use of ordinary community facilities (Emerson, 1995, p. 4)

The definition of challenging behaviour may also be broadened to include "Behaviour which is likely to impair a child's personal growth, development and family life and which represents a challenge to services, to families and to the children themselves, however caused" (The Mental Health Foundation, 1997, p. 12).

Turnbull and Ruef's (1996) research indicated that parents of children with disabilities defined problematic behaviour in two distinct categories, namely difficult and dangerous behaviours. Dangerous behaviours include destructiveness, self-injury, aggression, and pica whereas difficult behaviour involve behaviours that lead to the child being singled out and create increased need for parental monitoring (e.g., constant loud noises in public, passing of wind in public, and rocking). To completely understand the complexity of the problematic behaviour from the point of view of the parents, three main categories were examined, including observable behaviours, parents' own perceptions of their child's behaviour and other people's reactions to their child's behaviour. Typically, fear and worry were the primary emotions felt by parents when children displayed dangerous behaviour, whereas parents whose children displayed difficult behaviours commonly experienced concern, embarrassment, worry and annoyance. These emotions were continual and involved concern about other people's response to their child's behaviour in the community (Turnbull & Ruef). Despite the fear and worry associated with dangerous behaviours, parents expressed greater concern when their children displayed difficult behaviours.

Defining challenging behaviour is complex, as what constitutes a challenge to one family, carer or support staff member may not create a burden for another. Therefore the definition of challenging behaviour reflects a combination of coping skills, tolerance and patience of care-givers and also the degree of disruption caused by the behaviour displayed (Emerson, 2001; Slevin, 1999).

Challenging behaviour, whether it is defined as dangerous or difficult, appears to have several different functions for children. Typically, children display these behaviours to gain increased attention, reinforcement or for other intrinsic purposes such as self-stimulation or avoidance (Emerson & Bromley, 1995). Challenging behaviour may also be associated with communicative functions whereby a child acts in a particular way to convey their needs and wants (The Mental Health Foundation, 1997).

2.2 Prevalence of Challenging Behaviour

A large Western Australian study examining typically developing children aged between 4-16 years found that 4% of the sample showed aggressive behaviour problems (Zubrick et al., 1995). In particular, bullying, teasing, temper tantrums, arguing, fighting, and threatening were shown by 3.1% of children aged 4-11 years and 4.6% of adolescents aged 12-16 years (Zubrick et al., 1995). More recently, using the Child Behaviour Checklist (Achenbach, 1991) Sawyer and colleagues found a prevalence rate of 12.9% for externalising behaviour problems among a sample of typically developing Australian children aged 4-17 years (Sawyer et al., 2000).

Studies examining rates of challenging behaviours in children with disabilities have found behaviour problems to occur frequently. Depending on the samples and measures used, prevalence rates typically range between 20 and 64% (Gavidia-Payne & Hudson, 2002; Patterson & Blum, 1996; Quine, 1986; Roberts et al., 2003). A sample of epidemiological studies examining children and young adolescents with disabilities is presented in Table 1. All of these studies relate to the selected age range (*range* = 1.5-15 years) of the current research.

From the information presented in Table 1 it appears that approximately 40% of delayed children and adolescents show some form of challenging behaviour problems, and these behaviours are often considered to be in the clinical range (Dunlap, Robbins, & Darrow, 1994; Einfeld & Tonge, 1996; Quine, 1986). It is also evident that individuals with delays are significantly more likely to show challenging behaviours compared to their non-delayed counterparts (Baker, Blacher, Crnic, & Edelbrock, 2002; Baker, Blacher, & Olsson, 2005). Both mothers and fathers have reported significantly more behavioural difficulties in their children with disabilities compared to parents of non-delayed children (Baker et al., 2002; Baker et al., 2003). Aggression, self stimulation, tantrums, and general non compliance appear to be common occurrences in individuals with intellectual disabilities (Borthwick-Duffy, 1994; Dunlap et al., 1994; Emerson & Bromley, 1995; Quine, 1986; Saxby & Morgan, 1993). Also, challenging behaviour problems rarely occur in isolation and a significant majority of individuals display more than one form of challenging behaviour problems at any one time (Emerson & Bromley, 1995; Emerson et al., 2001b; Saxby & Morgan, 1993; Sigafoos, Elkins, Kerr, & Attwood, 1994).

Table 1

Reported Prevalence Rates of Behavioural Problems in Children and Young Adolescents with Developmental Disabilities

Study	Sample	N	Age of Sample	Identification Method	Prevalence
Rutter, Tizard, Yule, Graham & Whitmore (1976) Rutter (1989)	Community	11,000	5 - 15 years	Rutter Behavioural Scale completed by parents and teachers	Children with disabilities 3-4 times more likely to show mild or severe behaviour problems compared to typically developing children
Corbett (1985)	Children with IQ score below 50	140	< 15 years	Standardised interviews with parents	Behavioural disturbance found in 43% of children
Quine (1986)	Children with severe intellectual disabilities	200	5 - 18 years	Interview with parent (generally the mother)	45% had mild to severe behaviour problems Most common types of problem behaviour Attention seeking (29%) Temper tantrums (25%) Screaming (22%) Aggression (21%) Overactivity (21%)
Saxby & Morgan (1993)	Children with significant developmental delay	68	12 mths - 8 years	Mothers completed the Behaviour Screening Questionnaire	Average of 7.4 behaviour problems per child > 40% of children hurt others & displayed stereo-typical behaviours > 30% threw things, hurt themselves & were overactive
Dunlap, Robbins & Darrow (1994)	Children with autism & related disabilities	79	*x* = 11.6 years	Parents completed a questionnaire called "Survey of families & their response to behaviour problems".	Approx 40% of children displayed destructive behaviour once a day 61% displayed self stimulation 23% had tantrums 38% showed withdrawn behaviour
Einfeld & Tonge (1996)	Australian children with IQ of < 70	454	4 - 18 years	Developmental Behaviour Checklist (DBCL) completed by parents	40.7% had significant emotional or behavioural problems Severe intellectually disabled group > self absorbed & autistic behaviours Mild intellectually disabled group > anxiety, disruptive and antisocial behaviours

Study	Sample	N	Age of Sample	Identification Method	Prevalence
Baker et al. (2002)	Children with Bayley Scales of Infant Development scores between 30 & 85 comprised the delayed group & a non - delayed sample group with scores = > 85	225	3 years	Child Behaviour Checklist (CBCL) completed by the parent	Children with delays 3-4 times more likely to show behaviours in the clinical range 26.1% of children with delays had total scores > clinical cut-off compared with 8.3% of children without delays
Baker et al. (2003)	Children with Bayley Scales of Infant Development between 30 & 75 comprised the delayed group & a non - delayed sample group with scores above = > 85	205	3 years	CBCL completed by the parent	Mothers & fathers reported > behaviour problems in delayed children compared to those without delays
Tonge & Einfeld (2003)	Australian children with IQ of < 70	574	4 - 18 years	DBCL completed by parents	Individuals with ID 3 - 4 times more likely to show sig emotional / behavioural problems
Baker, Blacher, & Olsson (2005)	Children with Bayley Scales of Infant Development between 30 & 75 comprised the delayed group & a non - delayed sample group with scores above = > 85	81	3 years	CBCL completed by parents	Mothers rated 32.1% of the delayed sample as having behavioural problems in the clinical range compared with 12.2% of the non-delayed Sample
Chadwick, Kusel, Cuddy & Taylor (2005)	Young people with severe intellectual disabilities	82	11 - 17 years	Interview with parent (generally the mother) Aberrant Behaviour Checklist completed by parent and teacher	30.5% showed physical aggression 34.6% showed objectionable or difficult personal habits 26.8% showed destructive behaviour 22% screamed or made disturbing noises

2.2.1 The Nature and Extent of Challenging Behaviour

The frequency of challenging behaviour may change with a child's age, generally increasing during the adolescent period and then declining in adulthood (Emerson, 2001; Emerson et al., 2001b; Jacobson, 1982; Oliver, Murphy, & Corbett, 1987). Dunlap et al. (1994) found parents reported more destructive behaviours in adolescent children (>60%) compared to elementary school children (<30%). Borthwick-Duffy (1994) found that aggression was displayed more often in adolescent years and that self-injury increased after the age of 3. Chadwick et al. (2005) examined a group of children with intellectual disabilities at the age of 4-11 years and then again at 11-17 years and found that behaviours such as overactivity, irritability and sleeping difficulties decreased over time while sexually inappropriate behaviour increased.

Recent studies have examined changes in challenging behaviours based on specific syndromes. For example Eisenhower, Baker and Blacher (2005) found a higher rate of behavioural problems in children aged three who were diagnosed with autism and cerebral palsy compared to three year old children with Down syndrome and non-delayed children. Other dimensions such as gender and the severity of the intellectual disability have also been shown to be related to the frequency of challenging behaviour in children. McClintock, Hall and Oliver's (2003) meta-analysis of both children and adults with intellectual disabilities revealed that challenging behaviours such as self-injury, and stereotypic behaviours were more likely to occur in individuals with more severe intellectual deficits compared to individuals with less severe deficits. Difficulties with expressive and receptive language also increased the likelihood that individuals would display challenging behaviour (Emerson et al., 2001b; McClintock et al., 2003). Myers (1987) found similar results in a sample of

adolescents (*mean age* = 14.39) with intellectual disabilities; as adolescents with more severe intellectual disabilities more often showed behavioural difficulties compared to adolescents with less severe intellectual disabilities. Emerson and Bromley (1995) found that individuals aged between 5 and 58 with severe disabilities showed a greater number of comorbid challenging behaviours (79%) compared to individuals with less severe disabilities (24%). In addition, the severity of challenging behaviour was found to be positively related to the severity of the disability. Contrary to these findings, Hill and Bruininks (1984) found that maladaptive behaviours were displayed more often by the group with moderate intellectual disability compared to individuals in the severe and less severe groups. This difference may relate to definitional differences between behaviours that are defined as "challenging" versus "maladaptive".

Challenging behaviour appears to be more common in boys and men than in girls and women with many studies reporting ratios around 2:1. The biggest discrepancy between males and females appears to occur during the school years (Di Terlizzi, Cambridge, & Maras, 1999). McClintock et al. (2003) found males to be more likely to show aggressiveness, however, no gender difference was found for self-injurious behaviours. Borthwick-Duffy (1994) found a significant gender difference in a sample of people with intellectual disabilities living in California, with males being more likely to display aggression and property destruction compared to females. Contrary to these findings, Myers (1987) failed to find a gender difference in the rate of conduct disorders in a sample of adolescents with developmental disabilities referred to a child development centre for psychiatric problems. This difference may relate to the psychiatric nature of this sample of children. Although discrepancies exist in the literature, being male or having a significant deficit in language or intellectual ability may

be a risk factor in the development of challenging behaviour problems (Emerson et al., 2001b; McClintock et al., 2003).

The frequency of challenging behaviour is also affected by a person's living conditions. Borthwick-Duffy (1994) found challenging behaviour rates of 3%, 8%, 9%, 24%, and 49% for people living independently, with their families, in small community facilities, large community facilities and institutions respectively. Sigafoos et al. (1994) found similar results with rates of 35%, 17% and 3% for intellectually disabled people (*mean age* = 31) living in institutions, group homes and with their families. Therefore, the environment one lives in can be a risk factor for challenging behaviours in individuals with intellectual disabilities or challenging behaviour problems may be a risk factor for out of home living arrangements, with the family environment most commonly being associated with lower rates of challenging behaviour.

Some challenging behaviours, particularly externalising problems have been related to mental health problems. Children with disabilities are also more likely to display mental health problems. Emerson (2003b) found that 39% of a sample of children with disabilities showed a mental health problem compared to 8.1% of their typically developing peers. Of the children displaying a mental health problem, 25% presented with some sub-type of conduct disorder. A diagnosis of conduct disorder was more prevalent among intellectually disabled boys compared to intellectually disabled girls. Dekker and Koot (2003) found similar results with 25.1% of children with intellectual disabilities between the ages of 6 and 18 years showing symptoms sufficient to meet the diagnosis for a disruptive behaviour disorder.

2.3 Persistence of Challenging Behaviour Problems

Difficulties in childhood often lead to ongoing impairments in adulthood (Marshall & Watt, 1999; Shaw, Keenan, & Vondra, 1994). Tonge and Einfeld (2003) found that emotional and behavioural problems in a sample of Australian children with intellectual disabilities were persistent over time with 57.2% of the children with scores on the Developmental Behaviour Checklist in the clinical range remaining in this category some 7 years later. Similarly, Emerson et al. (2001a) found that different forms of challenging behaviour are largely stable over time with 71% of the original sample aged between 12 and 65 years still experiencing severe forms of challenging behaviour at a 7 year follow up. Between 69% and 95% of this sample continued to show behaviours such as head banging, self-biting, and self-scratching at the 7 year follow up (Emerson et al., 2001a). Turner and Sloper (1996) examined children with Down syndrome and found that 80% of children continued to show challenging behaviours at the 5 year follow up. Eighty-seven percent of the children showed persistent disturbed behaviours such as running away, shouting, screaming and swearing, 83% showed persistent fears and worries and 80% showed persistent habits and rituals (Turner & Sloper). None of these studies measured treatment or the level of intervention for challenging behaviour over the specified time period; therefore, it is unclear if this may have had any impact on the prevalence of problematic behaviours across time.

Emerson et al. (1996) followed a group of children who had completed a placement at a residential special school. Six and a half years later they found high persistence rates for challenging behaviour. Seventy-four percent of the sample showed persistent aggression, 72% persistent self-injury and 78% persistent destructiveness. Examination of the services

provided to children since leaving school revealed that less than 50% of the children had behavioural programs or any written guidelines for behaviour management. Thus, the rate of persistence for challenging behaviour may be the result of infrequent or intermittent intervention.

Baker et al. (2003) examined a group of delayed children aged 3 years and found that 70% of the sample continued to display challenging behaviours in the clinical range a year later. Similarly, Green, O'Reilly, Itchon, and Sigafoos (2005) examined pre-school children with developmental disabilities and found aberrant behaviour to be stable across a 3-year period for 69% of the sample. Sigafoos et al. (1994) found that 86% of behaviours had been a concern for longer than 12 months in a sample of Australian people with disabilities. In terms of service utilisation, a behavioural program was developed for only 34% of individuals in this study. Chadwick et al. (2005) examined a group of children with intellectual disabilities aged 4-11 years over a 5 year period and found that the rates of aggression, destructiveness, and self-injury did not change across assessment points suggesting high persistence of behaviour problems. Other researchers have also examined the stability of challenging behaviour over time with persistent rates ranging between 2 and 10 years (Emerson et al., 1996; Kiernan & Alborz, 1996; Murphy et al., 1993; Schroeder, Schroeder, Smith, & Dalldorf, 1978).

2.4 Costs to the Individual, Family and the Wider Community

Given the extensive literature outlining the burdens and strains faced by families with a child with a disability, research has also begun to focus on the associated costs that occur when

young people display co-morbid challenging behaviour problems. Table 2 summarises the effects of challenging behaviour problems on the individual child, family, and wider community as reported by past literature.

Table 2

Effect of Challenging Behaviour Problems on the Individual, Family and Community

Effect	Reference
Individual	
Difficulty acquiring new skills	Rojahn & Tasse (1996); Tonge (1999)
Social rejection & exclusion	Russell (1997); McGill et al. (2006)
Reduced friendships & limited interaction with others	Russell (1997)
	Ehrmann, Aeschleman, & Svanum (1995);
Restricted opportunities to participate	Turnbull & Ruef (1996)
in events, outing and clubs	Emerson (2001)
Negative effect on health	Borthwick–Duffy (1994)
Impaired vision	
Hearing loss	
Scarring	
Possibly even death	
Greater admissions to hospitals & residential care	Emerson (2001)
Lengthier periods in institutions	Emerson (2001)
	Emerson (2001); Emerson, McGill, & Manselll
Greater risk of abuse	(1994)
More often take medications with severe side effects	
Restraining devices more often used	
Family	
Sibling negativity	Dodd (2004); Ross & Cuskelly (2006)
Greater levels of parental psychological distress	Emerson, Robertson, & Wood (2004)
particularly associated with behavioural problems in	
children	Olsson & Hwang (2001)
	Quine & Pahl (1985)
	Baker et al. (2002)
	Tomanik, Harris, & Hawkins (2004)
Reduced perception of coping ability	Saxby & Morgan (1993)
Greater levels of family stress & exhaustion	Emerson (2003a); Ruef et al. (1999);
Reduced opportunities for relaxation	Turnbull & Ruef (1996)
Continual damage to household property	
Limited opportunities for paid employment	Shearn & Todd (2000)
Increased rates of health concerns & injuries	Kiernan & Alborz (1996)

Community	
Negativity expressed by other parents	Russell (1997)
Increased out of home placements	McIntyre et al. (2002) Alborz (2003)
Reduced employment options, independent living arrangements & educational opportunities	Emerson (2001)
Substantial costs to the community including multiple agency involvement & time consuming & expensive interventions	Emerson (2001); Hudson, Jauernig, Wilkin, & Radler (1995); Knapp, Comas-Herrera, Astin, Beecham, & Pendaries (2005); Sanders, Mazzucchelli, & Studman (2004b)

The research findings in Table 2 indicate that children with intellectual disabilities who display co-morbid challenging behaviour problems experience many negative consequences in their social, academic, family, and community life. There is a consistent finding that parents of children with disabilities and co-morbid behaviour problems experience higher rates of depression and stress compared to parents who have children without behavioural difficulties. Lecavalier and Wiltz (2006) examined the relationship between parental stress and behaviour problems using a sample of parents of children with autism spectrum disorders (*mean age* = 9 years) and found that child behaviour problems, specifically conduct problems were strongly associated with parental stress. Similarly, Quine and Pahl (1985) found that parents of mentally handicapped children rated child behaviour problems as causing more stress than other events such as sleep difficulties, family adversities, comorbidity, social isolation, money troubles, and their child's health. Results also showed that parental stress increased as their child's impairments and behaviour worsened. Baker et al. (2002) found that child behaviour problems accounted for more variance in parental stress compared to the child's level of cognitive impairment.

Consistent with these findings, Tomanik et al. (2004) found that child behaviour difficulties were a significant contributor to mothers' stress levels. In particular, irritability, non-compliance, limited adaptive behaviours, and few communication abilities in their children created more stress for mothers. Saxby and Morgan (1993) found an association between the number of behaviour problems present in a child and the perception of parents' ability to cope. Olsson and Hwang (2001) compared depression rates in parents of children with autism, parents of children with intellectual disability without autism, and parents of typically developing children and found that depression rates were significantly greater in the two groups of parents of children with disabilities compared to the parents of typically developing children. Depression scores were highest for both mothers and fathers of children with autism. It is possible that the behavioural disturbances commonly associated with autism created additional parental stress.

Ongoing challenging behaviour also costs the community a substantial amount of resources. For example Hudson et al. (1995) estimated that ongoing challenging behaviour for one individual per year costs the community on average $40, 510 (AU). This cost includes crisis and respite accommodation, diverted support, extra staffing, repair and maintenance, and medical and injury related expenses. More recently Knapp et al. (2005) found the cost of care accommodation services for people with intellectual disabilities increased as challenging behaviour levels increased and intellectual disability worsened. Despite the intervention and care costs associated with dual disabilities and challenging behaviour problems, it is well known that many families do not receive the help that is required and therefore any costs which are calculated would not be a complete representation of the costs of services required for this population.

In terms of the access and utilisation of services, parents of children with disabilities and challenging behaviours have often found information to be inaccessible and unsuitable (Turnbull & Ruef, 1996). Einfeld and Tonge (1996) examined an Australian sample of children with disabilities aged between 4 and 18 years and found that a large majority (91%) of parents did not obtain help for their child's psychopathology from professionals who were knowledgeable in both the areas of disability and mental health. Similarly, Tonge (1999) reported that a significant proportion (>90%) of children with developmental disabilities failed to receive appropriate services. McCarthy and Boyd (2002) found that only 36% of a sample of intellectually disabled children with severe behaviour disorder received contact from a psychiatrist or a psychologist during adolescence. Health professionals such as physicians, psychologists, and social workers have been reported as "not helpful" by parents when compared to teachers, family support, and written materials (Dunlap et al., 1994). Parents mostly wanted additional respite care, family support, programs that teach new skills and individual help from trained professionals (Dunlap et al., 1994). Turnbull and Ruef (1996) found consistent results with parents opting for practical strategies which could be implemented in a day-to-day setting. Given this information, considerable attention needs to be given to parents' needs and wants surrounding accessibility and suitability of services designed to address behaviour problems in children with disabilities.

In summary, co-morbid challenging behaviour problems and disability have significant influences on the individual, family, and the wider community. The individual child is likely to experience increased exclusion and more negative interactions both within the home and the wider community. Families including siblings experience more stress and disruptions to the family routine which hinder their involvement in the community. Out of home placement, limited employment options, and a need for more intensive services are likely to have a

significant impact on the general community. Finally, very few families with a child with a disability receive appropriate professional help. Therefore effective evidence based interventions which are acceptable to families with a child with a disability are urgently needed.

2.5 Risk and Protective Factors for Challenging Behaviour Problems

There are a number of theories relating to the mechanisms of challenging behaviour in children and adolescents, including genetics, social learning theory, parent-child relationships and contextual family variables (Emerson, 2001). These theories describe mechanisms by which multiple factors in the child, family, and school environment can create unhealthy contexts which increase the risk for future challenging behaviour to develop in children and adolescents. Risk factors are defined as "variables which are associated with a high probability of onset, greater severity, and longer duration of mental health problems" (Coie et al., 1993, p. 1013). In comparison, protective factors are facets of an individual's life which enhance resilience in the face of risk factors (Coie et al., 1993).

Although the risk and protective factors for challenging behaviour in children with disabilities are similar to the factors which influence the development and maintenance of problem behaviour in typically developing children, different factors may have more significance or play a greater role in families who have a child with disability. However, given that the literature pertaining to risk and protective factors for challenging behaviour in children with disabilities is sparse, this section will address the common risk factors associated with problem behaviour in typically developing children and will also outline the available

literature in the disability field. Unless specified as unique to the disability area, the research presented below relates to typically developing children.

2.5.1 Child Factors

The development and maintenance of challenging behaviour involves an interaction between family genetics and the family environment (Kazdin, 1995). Externalising behaviour has been found to have a genetic component typically ranging between 40% – 60% (Marshall & Watt, 1999). Support for a genetic component has been studied extensively in many twin and adoption studies with results showing evidence of a genetic effect (Carey & Goldman, 1997). van den Oord, Verhulst and Boomsma (1996) studied the impact of environmental and genetic factors on problem behaviours in three year old twins. Results showed that genetic factors, shared environmental factors, and non shared environmental factors accounted for 62%, 9% and 29% of the variance respectively. Adoption studies have also shown a genetic link with externalising behaviour problems. Cadoret (1978) examined adult adoptees who had been separated at birth from their biological parents who had antisocial behaviour problems. Results showed that an antisocial diagnosis in the adoptee was significantly related to the diagnosis of antisocial behaviour or personality in the biological parent.

Huesmann, Eron, Lefkowitz, and Walder (1984) examined the stability of aggression over a 22 year period and found aggression to run across generations. Children who were found to be aggressive were more likely to have aggressive parents and grandparents. Studies examining the family environment have also reported results which suggest that children of parents with

problem behaviour and dysfunctional backgrounds are at a greater risk of developing problem behaviour themselves (Fergusson, Horwood, & Lynskey, 1994; Owings-West & Prinz, 1987).

A child's temperament may also play a significant role in the development and maintenance of challenging behaviour. Studies have shown a link between children with temperaments which are characterized by difficulties, inflexibility and negative emotion to be associated with greater behavioural problems (Marshall & Watt, 1999). Parent–child interactions and family interactions also play a contributing role in the association between child temperament and increased behaviour problems (Marshall & Watt). Other child factors such as early onset aggressiveness, poor cognitive and language skills, poor social skills, male gender and academic failure may also play a role in the development and maintenance of behavioural problems (Marshall & Watt; Williams, Ayers, Van Dorn, & Arthur, 2004).

Shaw et al. (1994) examined several developmental precursors to externalizing behaviour problems in typically developing children and found that aggression in 24 month old males was predicted by child non-compliance at 18 months of age and mothers' unresponsiveness. In comparison, for 36 month old females, externalizing and internalizing behaviour problems were predicted by child non-compliance at both the 18 and 24 month time frames. This finding suggests that early onset externalizing behaviour problems increase the risk for future behavioural problems.

Specific to the disability field, particular problem behaviours have been found to be more likely to occur in different syndromes suggesting that genetic factors play a significant role (O'Connor & Davis, 1999). Einfeld's (2005) review reported that children with Fragile X

syndrome were more likely to show behavioural difficulties such as self-biting, gaze avoidance, shyness, and difficulties with attention. Similarly, Lachiewicz, Spiridigliozzi, Gullion, Ransford and Rao (1994) found that boys with Fragile X syndrome showed tactile defensiveness and abnormal language difficulties four times more often than children matched for intellectual functioning. Other syndromes also have behavioural problems which appear to be characteristic of the syndrome. For example, children with Prader-Willi Syndrome tend to display extreme temper tantrums which are often associated with food. People who suffer from Williams Syndrome commonly present with hyperactivity, anxiety and sleep difficulties (Einfeld, 2005; King, State, Shah, Davanzo, & Dykens, 1997). Severe self-injury, including lip-biting, face hitting and face picking has been found to be associated with Cornelia de Lange syndrome (Luiselli, Matson, & Singh, 1992; O'Connor & Davis, 1999). Similarly, self-biting, severe skin picking, and head banging has been associated with Lesch-Nyhan Syndrome (Luiselli et al., 1992; Nyhan, 1994).

Behaviour problems in children with disabilities have also been shown to be associated with the severity of the disability (McClintock et al., 2003; Myers, 1987). Although not exclusively focused on behavioural problems, Gillberg, Persson, Grufman, and Themner (1986) examined correlates of psychiatric disturbance amongst children with intellectual disabilities aged 13 – 17 years. The psychiatric diagnosis was conducted by trained child psychiatrists using standardised interviews with both the mother and the child as appropriate. The results showed that a diagnosis of epilepsy and / or Down syndrome significantly impacted on the rate of psychiatric disturbance. Absence of epilepsy and a diagnosis of Down syndrome were correlated with fewer psychiatric disturbances. Similarly, Cormack, Brown and Hastings (2000) examined the correlates of behavioural difficulties and found that a diagnosis of Down syndrome was associated with fewer behaviour problems in children aged 4-18 years.

Within the field of intellectual disability, Hastings and Mount (2001) examined several potential risk factors for later behavioural and emotional problems in a sample of children and adolescents with severe to profound intellectual disabilities. Results showed that greater physical ability, male gender and being younger in age was associated with more behavioural problems. However, no evidence was found for any of the early infancy predictors including feeding problems, early development or obstetric complications. Cormack et al. (2000) found similar results with a sample of children and adolescents with severe intellectual disabilities. Results showed that younger children and children with fewer physical disabilities were more likely to display emotional and behavioural difficulties (Cormack et al., 2000). In comparison, Chadwick, Piroth, Walker, Bernard and Taylor (2000) failed to find a gender difference in their sample of children with severe intellectual disabilities. However, several similarities were apparent. Greater physical ability, being younger in age and the absence of a diagnosis of Down syndrome was associated with a greater rate of behaviour problems.

Cognitive and language skills are also particularly important in the disability field. McClintock et al. (2003) examined risk markers for challenging behaviour and found that self-injury, aggression and stereo-typical behaviours were more common among individuals with lower cognitive abilities and greater language and communication difficulties. Research examining typically developing children suggests that a child with fewer cognitive skills and poor language skills may find the interactions in their environment difficult to understand leading to greater rates of behavioural problems. Children may not have the social skills, understanding or problem solving skills to cope with new or complex situations thus increasing the likelihood of behavioural difficulties (Sanders, Gooley, & Nicholson, 2000; Sanders, Mazzucchelli, & Studman, 2003). Behavioural problems may also serve a communicative function to get attention or preferred objects especially if language and

communication abilities are limited (Kiernan & Kiernan, 1994). Little to no social contact or interaction has also been found to be associated with self-injurious behaviour in a sample of young children with developmental disabilities (Hall, Oliver, & Murphy, 2001). Children who were left alone were more likely to display self injurious behaviours. Despite this result caution should be noted due to the small sample size evident in this study.

2.5.2 Parent Factors

One of the most important family characteristics which has been associated with the development and maintenance of challenging behaviour is parenting practices. Parenting practices that are characterized by inconsistencies, poor monitoring, harsh and restrictive punishment and continually changing expectations, have been linked to greater behavioural problems in children and adolescents (Marshall & Watt, 1999; Sanders et al., 2000). Patterson, Debaryshe, and Ramsey (1989) found 30% - 40% of child antisocial behaviour to be accounted for by parenting practices in a large sample of grade school boys. Inadequate parenting may provide inappropriate modelling of aggressive behaviour, which reinforces maladaptive ways to interact, increasing the risk for future challenging behaviour problems. Heller, Baker, Henker and Hinshaw (1996) found mothers' authoritarian parenting practices to be a strong predictor of teacher reported externalizing behaviour for pre-school aged children entering year one.

Dadds, Sanders, Morrison, and Rebgetz (1992) examined family interaction patterns among groups of depressed, conduct disorder, mixed conduct and depressive disorder, and control children (*Mean age* = 10 years) and their parents completing problem solving tasks within a

clinic setting. Results revealed considerable discrepancies between family interactions among all groups in both laboratory and naturalistic settings (Dadds et al., 1992; Sanders, Dadds, Johnston, & Cash, 1992). Inappropriate and unpleasant instructions, questions and attention from parents characterised all interactions; however, the parents of the conduct disordered children displayed more of these factors than the control group parents. Children in the conduct disordered group responded with greater levels of aggravation, and elevated levels of angry and sad emotions compared to the children in the other comparison groups (Dadds et al., 1992; Sanders et al., 1992).

Having a parent who is inconsistent, unresponsive, and shows harsh parenting practices may also lead to poor parent-child interactions, which are associated with insecure attachment styles. Insecure attachment styles may increase the risk of externalizing disorders (Marshall & Watt, 1999). In addition, parental psychopathology may also increase the likelihood of children displaying behavioural problems through mechanisms such as parenting practices or poor parent-child relationships. Sanders et al.(2000) found that parents of children with behavioural problems displayed a greater rate of psychopathology than parents of children without behavioural difficulties. Although much research still needs to be conducted in relation to parental stress, parental behaviour, and child behaviour in the disability field, parents of children with disabilities commonly experience greater levels of depression and stress compared to typically developing families, and therefore parental psychopathology and the ability to be available, responsive, and consistent to children may be compromised (Hastings, 2002).

The beliefs and expectations about disability and impairment that parents hold are also likely to contribute to the development and maintenance of behavioural problems (Woolfson, 2004).

This is particularly apparent for parents of children with disabilities. Parents of children with disabilities may be more lenient and attribute the cause of the behavioural problem to their child's disability, thereby believing that there is little they can do to change the child's behaviour. Furthermore, parents may believe that their child has considerable difficulty on a day-to-day basis and are unlikely to want to add to their child's burden by trying to teach them appropriate behaviour or by trying to discipline them (Woolfson, 2004). Given that children with disabilities have many different functions for their behaviour, it is possible that parents are accidentally rewarding their child for negative behaviour through attention, escape, avoidance or by giving them a preferred item (Sanders et al., 2003).

Another important factor to consider is the disability of either a mother or a father. Avery and Hogan (2006), as cited in Hogan, Shandra and Msall (2007), report that at least one parent is disabled in approximately one third of children with a disability. Living with a parent with disability may act as a risk factor by influencing parent-child interactions, parental supervision and monitoring, and the ability of parents to provide a safe and enriching environment. Hogan et al. (2007) found poorer maternal school involvement and a less enriching home environment for adolescents whose mothers had a disability compared with normal controls.

2.5.3 Family, Socioeconomic and Environmental Factors

Family and environmental factors also play a significant role in the development and maintenance of challenging behaviour. Family factors such as divorce, remarriage, marital conflict, foster care, family stress and poor social support and single parenthood have also

been found to increase the risk of behavioural problems in children and adolescents (Marshall & Watt, 1999; Williams et al., 2004). Externalizing behaviour problems are at least twice as likely to occur in children who have experienced family break downs, or have witnessed marital conflict. Ilomaki, Viilo, Martunen, Makikyro, and Rasanen (2006) investigated the impact of family risk factors on conduct disorder and violent behaviour in a sample of adolescents admitted to psychiatric impatient care and found physical abuse and an unstable family environment predicted conduct disorders in girls. No familial risk factor significantly predicted conduct disorder in boys.

Major stressors appear to be more evident in families with children with conduct disorder compared to families without conduct disordered children (Marshall & Watt, 1999). Single parenthood, poverty and low socioeconomic status are also likely to create additional burden and stress for these families. Forehand, Biggar and Kotchick (1998) found that externalizing behaviours among typically developing adolescents aged 11 – 15 years significantly increased when family risk factors increased from three to four. More recently, Harland, Reijneveld, Brugman, Verloove-Vanhorick and Verhulst (2002) found stressful life events such as parental unemployment, and parental divorce and separation was associated with emotional and behavioural problems amongst a group of typically developing children aged 4 – 15 years old as reported by parents using the Child Behaviour Checklist.

Using a sample of 124 children with intellectual disabilities aged 11 to 15 years, Dickson, Emerson, and Halton (2005) found several risk factors associated with increased rates of antisocial behaviour. Antisocial behaviour included bullying / threatening others, stealing, destruction of property and being in trouble with the law. Risk factors included having a

diagnosable mental health problem, poor family functioning, low maternal education attainment, and living in poverty. Social deprivation and mental health problems appear to act as significant risk factors in the development and maintenance of externalising behaviour problems for children with disabilities.

Bradley, Rock, Whiteside, Caldwell, and Brisby (1991) examined the dimensions of parenting in families with a child with a disability and found that factors such as socioeconomic status, social support and marital quality influenced parenting practices. In particular, marital quality was associated with providing an interesting and engaging environment for children. Furthermore parents were more responsive to their children when they perceived their level of social support to be greater (Bradley et al.).

Outside influences such as peer relationships and the school environment have also been shown to be associated with the development and maintenance of challenging behaviour (Andres, Catala, & Gomez - Beneyto, 1999; Dekovic, 1999). The way teachers or peers respond to difficult behaviour may reinforce challenging behaviour problems. Children may learn new behaviours by watching others and may be more connected to an antisocial peer group due to peer rejection associated with their behaviour (Marshall & Watt, 1999).

2.5.4 Protective Factors

Few studies have examined the role of protective factors that may act as buffers against the development of challenging behaviours in children with developmental disabilities. Protective factors may stop risk factors from emerging, and may also interfere with risk factors directly

or indirectly by means of influencing the interactions between risk factors and negative outcomes (Coie et al., 1993; Dignam & West, 1988; Wheaton, 1985). Many of the studies explored in this section are not directly linked to behavioural problems in children with disabilities; however, they do offer some insight into some of the factors which may create resiliency in families with a child with a disability.

Marshall and Watt's (1999), and Kazdin's (1995) reviews found protective factors that appear to act as buffers for externalizing disorders in typically developing children include various factors from within the child, parents, and the outside community. Children who are more adaptable, flexible, and have an easy temperament are likely to better adjust to any risk factors. Good intellectual functioning, hearing, academic achievement, problem solving skills and communication skills also play a protective role. Positive parenting practices, good family support, and low family stress also seem to reduce the role of risk factors. Children who attend a positive school environment, have teacher involvement, and have significant adults/mentors within their life, fair better than children without these factors. Similar results were also found by Svetaz, Ireland, and Blum (2000) using a sample of adolescents with learning disabilities. Family connectedness, school connectedness and religious identity emerged as protective factors and were associated with reduced risk of emotional distress, suicide attempts and violence for students with learning disabilities.

Heiman (2002) examined the resilience of a group of parents of children, ranging in age from 7 – 16 years who had a range of disabilities including intellectual, physical, and learning disabilities. Parents coped better when they had a positive outlook on life including the needs for the child and the goals for the future. Both informal and formal supports for all family

members, open communication and strong parental relationships also enhanced the ability of the parents to cope with having a child with a disability (Heiman, 2002). Bayat (2007) conducted a similar study with a group of primary care-givers of children with autism and found several specific resilient factors. Resilient families pooled their resources, collaborated together as a family, were flexible and had good communication. Resilient families also adjusted to having a child with a disability by having a positive focus. Families reported that having a child with disability increased their level of patience, compassion and increased their tolerance of differences. Another characteristic of resilient families was their strong belief and spiritual experience.

Jones and Passey (2004) examined family adaptation, stress and coping with a sample of families with a child with a developmental disability and behavioural problems. Families who had a positive focus, cooperated and perceived their care – giving role within their own control experienced lower levels of stress. Horton and Wallander (2001) found hope acted as a buffer to distress in mothers who care for children with physical disabilities.

2.6 Summary

This chapter provided an overview of the extent, nature and severity of challenging behaviour problems in children with disabilities. Prevalence studies typically reveal 40% of children and adolescents with disabilities show some sort of challenging behaviour problems. Studies showed that being male, being younger in age and having fewer physical disabilities increased the risk of the development of challenging behaviour problems. Other family and environmental factors were also found to increase the risk of challenging behaviour problems

including unresponsive and inconsistent parenting practices, parental psychopathology, parental beliefs and expectations and family conflict. An overview of the literature on the costs associated with challenging behaviours for the individual child, family and wider community were presented. This highlighted issues such as heighten levels of abuse, difficulty acquiring new skills, more hospital stays, greater parental distress and exhaustion, increased damage to household property, more out of home placements, and increased use of community resources. Examination of protective factors revealed that resilient families tend to pool their resources, collaborate as a family, have good communication and have a positive outlook. Although there were very few studies examining the link between protective factors and challenging behaviour problems in children with disabilities, it is possible that if the family unit is resilient, then this will in turn act as a buffer for externalising behaviour problems in children (Marshall & Watt, 1999). The need for empirically supported intervention programs which target challenging behaviour are therefore warranted. The next chapter will explore and discuss different interventions designed to assist in the management of challenging behaviour problems.

CHAPTER THREE

Interventions for Challenging Behaviour in Children

3.1 Introduction

While extensive research has focused on the impact of behavioural problems in families with a child with a disability, researchers have only relatively recently begun to identify the need to develop empirically supported early intervention programs, particularly for children with disabilities (Emerson, 2001; Lonigan et al., 1998). This chapter will begin with a brief overview of the literature pertaining to different interventions for challenging behaviour problems in children with disabilities focusing particularly on functional communication training and social skills training. The research on parent training will then be presented in the context of behavioural difficulties for both typically developing children and children with disabilities. The efficacy of group-based parent training will be reviewed with a particular focus on the Triple P-Positive Parenting Program and the Stepping Stones Triple P literature.

3.2 Psychosocial Interventions

Many different prevention and treatment methods have been explored over the past 20 years for challenging behaviour problems in children with disabilities. In a review by Matson, Dixon, and Matson (2005), the most commonly studied interventions for aggression in developmentally disabled children and adolescents (*Age range* = 0-22 years) included

functional communication training, differential reinforcement, and time out. Other interventions included pharmacological treatments, aversive stimuli, non-contingent reinforcement and social skills training. Matson et al. (2005) found that aggression significantly declined following all the interventions in their review. An earlier review by Lundervold and Bourland (1988) assessed 62 empirical studies and found that punishment and differential reinforcement were the most frequently reported types of intervention for aggression, self-injury and property destruction. Children aged between 11 and 15 years were the most researched age group with self-injurious behaviour being the most common form of challenging behaviour. Lundervold and Bourland reported that most studies employed single case designs with few studies reporting any maintenance effects.

Functional communication training (FCT) assumes that problem behaviour has a communicative function and involves replacing problem behaviour with an alternative communicative response (Durand & Merges, 2001). This approach requires a comprehensive assessment of the function of the problem behaviour. Individuals are taught new, more appropriate responses to communicate their needs and wants. It is argued that these new responses will reinforce the individual's requests, thus reducing the level of problem behaviour. For FCT to be effective, the new more appropriate response must accommodate the needs and wants of the individual as effectively as the problem behaviour, otherwise problem behaviour will not change significantly. Functional communication training has been shown to be effective in reducing levels of aggression, stereotyped behaviour, and self-injurious behaviour in a variety of settings (Durand & Merges, 2001).

Wacker et al. (2005) found significant reductions in destructive behaviours and total behaviour problems following FCT intervention in children aged 1-6 years with developmental delays. Similarly, Tait, Sigafoos, Woodyatt, O'Reilly, and Lancioni (2004) found FCT increased communication skills for six children (*Age range* = 16 – 47 months) with developmental and physical disabilities. Using a combination of non-contingent escape and FCT, Mildon, Moore, and Dixon (2004) found significant reductions in disruptive behaviours and increased rates of on-task behaviour and socially acceptable verbal responses for a 4-year-old boy diagnosed with autism. Similarly, Peck-Peterson et al. (2005) combined FCT and choice-making strategies for two young children aged nine and four and found that the children's problem behaviour decreased and their level of task engagement increased. Hence, FCT appears to be effective in reducing challenging behaviours and increasing pro-social and positive communication behaviours in children with developmental and physical disabilities.

Matson, Fee, Coe, and Smith (1991) examined the effects of a social skills program for a group of developmentally delayed children aged between 4 and 5 years and found positive results. The social skills program involved teaching children appropriate behaviours through the use of puppet shows, peer modelling, and role-plays over two 2 hour sessions for 6 weeks. Compared to the control group, children in the intervention group showed less inappropriate social behaviour such as tantrums, aggression, and snatching toys and more appropriate social skills such as sharing, taking turns, and greeting other children (Matson et al., 1991).

Similarly, Tse, Strulovitch, Tagalakis, Meng, and Fombonne (2007) examined the effectiveness of a group-based 12 week, 1-1 ½ hour session, social skills training program

designed for adolescents aged 13-18 with a diagnosis of an autism spectrum disorder. The program focused on psycho-education and role-play. Child problem behaviours, including irritability, social withdrawal, stereotypic behaviour, inappropriate speech, social competence, and conduct problems were found to significantly improve following the completion of the program. Social skills training was also found to be effective in increasing social communication skills for a group of children aged between 6 and 7 years with a diagnosis of an autism spectrum disorder (Chung et al., 2007).

Although targeting typically developing children aged 4 to 8 years old, with problem behaviours, Webster-Stratton and Hammond (1997) found that a child centred intervention program known as "Dinosaur School" which focused on interpersonal difficulties, social skills, problem solving, school problems, and understanding emotions led to positive outcomes. The program involved 22, two-hour sessions conducted in groups of five or six children. Compared to control children, mothers of intervention children reported significant improvements in child behaviour problems, pro-social behaviours and conflict management skills (Webster-Stratton & Hammond, 1997).

While functional communication training and social skills training for individual children with disabilities have shown promise in reducing child problem behaviours, much research on treating and preventing behaviour problems in typically developing children, and children with disabilities has involved family – based interventions, in particular parent training (Kazdin, 2005). Results from studies of various parent training approaches have shown reductions in externalising symptomatology from clinical to non-clinical levels and outcomes have typically generalised to other family members including siblings (Briesmeister &

Schaefer, 1998; Kazdin, 2005; Lundahl et al., 2006). Many other advantages of this approach include empowering parents to make changes by increasing parenting confidence and parenting skills, reinforcing the family system, increasing family communication, strengthening parent child interactions and providing broad generalisable results across different settings (Briesmeister & Schaefer, 1998). In addition, because parents have a core role in the change process during parent training they may be more motivated and less resistant to treatment suggestions (Briesmeister & Schaefer). Parents have a key role especially in families with a child with disability regarding the management of routines and the overall harmony of the family system.

3.3 Parent Training

Parent training has gained significant popularity since the 1960's and is one of the most extensively evaluated interventions in the treatment of child and adolescent mental health disturbances, particularly for externalising behaviour problems (Graziano & Diament, 1992; Kazdin, 2005; Maughan, Christiansen, Jenson, Olympia, & Clark, 2005; Wyatt Kaminski, Valle, Filene, & Boyle, 2008). The role of family interaction patterns in the development and maintenance of problem behaviours in children is emphasised in this approach (Sanders & Markie-Dadds, 2002). Between 30%- 40% of behavioural problems in children are assumed to be a result of parenting and family variables such as poor parental discipline and monitoring practices (Patterson et al., 1989). The link between parenting behaviours and child problem behaviour highlights the important role that parents can have in the prevention and treatment of child behaviour problems (Lundahl et al., 2006). Parent training is underpinned by social learning models, operant conditioning, social information processing models,

applied behaviour analysis strategies, and the extensive literature on childhood development and psychopathology (Sanders & Markie-Dadds).

Contingency Management Training (CMT) and Planned Activities Training (PAT) have typically been included as part of parent training programs. These interventions typically involve parents learning skills in time management, age appropriate activities, explanation of consequences and rewards, incidental teaching, and providing appropriate feedback (Briesmeister & Schaefer, 1998; Roberts et al., 2003). Harrold, Lutzker, Campbell and Touchette (1992) describe CMT as "compliance training with a focus on consistent use of antecedents and consequences" while PAT is defined as "teaching parents to plan for and engage in activities with their children" (p. 89). Generally parents are encouraged to be actively involved in parent training through the use of discussions, role-plays, therapist-modelling, feedback and homework exercises (Baker, 1996; Scott, 2002). The general aim of parenting programs is to teach parents effective strategies to increase desirable behaviour and decrease misbehaviour using different behaviour monitoring techniques.

Research into parent training approaches reveals positive results for an array of childhood difficulties including conduct and oppositional defiant disorders, attention deficit hyperactivity disorder, feeding problems, anxiety disorders, autism, and other developmental disabilities (Bor, Sanders, & Markie-Dadds, 2002; Dadds, Schwartz, & Sanders, 1987; Graziano & Diament, 1992; Ireland, Sanders, & Markie-Dadds, 2003; Sanders, 1996; Sanders & Markie-Dadds, 2002). Effects have been shown to be positive for both younger and older children (Dishion & Patterson, 1992; Sanders & Markie-Dadds, 2002). Moderate to large effect sizes and maintenance of treatment gains between 1-14 years have been reported in

treatment outcome studies using both single case designs and group formats (Lundahl et al., 2006; Sanders, 1999; Scott, 2002; Serketich & Dumas, 1996; Wyatt Kaminski et al., 2008). Positive treatment outcomes have also been shown to generalise to other settings such as school, and parents generally report that they are satisfied with the treatment provided (Baker, Landen, & Kashima, 1991; Sanders & Markie-Dadds, 2002; Scott, 2002).

3.4 Parent Training Intervention Studies

A considerable amount of research examining the efficacy of parent training programs designed for parents of developmentally disabled children has been conducted, mostly using programs delivered on an individual basis to families (Breiner & Beck, 1984; Feldman & Werner, 2002; Graziano & Diament, 1992; Harrold et al., 1992; Moran & Whiteman, 1991; Roberts et al., 2003; Sanders & Plant, 1989). These individually administered intervention programs have shown some very promising results (Breiner & Beck, 1984; Roberts et al., 2003). Case studies, single subject and multiple baseline designs have often been utilised.

Sanders and Plant (1989) examined treatment outcomes for five developmentally disabled preschoolers diagnosed with oppositional disorder and their parents after completing a 9-week intervention program combining CMT and PAT. Four families received the intervention program while one family served as a control family. All intervention sessions occurred in the family home and incorporated discussions, modelling, rehearsal, and feedback. Findings showed significant decreases in child deviant behaviour and improvements in the accuracy of program skill implementation for three of the intervention families at follow up and these results were maintained at the 3-month follow up (Sanders & Plant).

Similarly, Lowry and Whiteman (1989) conducted a study to determine the efficacy of a short-term, intensive parent-training program designed to teach mothers of developmentally delayed infants (aged 15 – 34 months) behavioural techniques. The program used PAT techniques and taught parents skills by using verbal instruction, modelling, and feedback. After training, results showed fewer inappropriate rewards and prompts made by mothers, greater maternal sensitivity in parent/child interactions, improved teaching behaviour, and greater child play (Lowry & Whitman, 1989).

Moran and Whiteman (1991) used a similar training program which focused on teaching mothers of children diagnosed with autism (*mean age* = 5.3 years), verbal instructions, physical guidance, contingent rewards, problem solving, and self-monitoring skills. The training used PAT techniques and included six 1 ½ hour individually administered sessions and incorporated video demonstrations, information booklets, and feedback. Results showed that mothers' appropriate prompts, contingent rewards, and mother-child interactions improved following the completion of the intervention program while child on-task behaviour and rate of non-compliance improved after the intervention was complete. Mothers' satisfaction with the training was also found to be good (Moran & Whiteman, 1991).

Following on from these studies, Harrold et al. (1992) examined the effects of CMT and PAT administered individually with four mother-child dyads. Participating children (aged 3 – 8 years) had mild to moderate intellectual functioning deficits and displayed severe behavioural problems. Two of the mother-child dyads received PAT followed by CMT and the other two received the programs in the reverse order. Positive results were found irrespective of whether

PAT or CMT was administered first. Mothers' stress levels, instructions, verbal feedback and consistent follow-up improved after the program while children showed less crying, less off-task behaviour and less aggression after the program was finished (Harrold et al., 1992).

Using similar intervention strategies, Feldman and Werner (2002) examined parents of children with developmental disabilities and behaviour problems. Parents completed the program on an individual basis and were then compared to parents on the waitlist who had not yet received the intervention. The intervention involved individual, weekly home visits, which lasted for 3-6 months and focused on teaching parents skills to change antecedents and reinforcers and redirect or plan for the future. Parents who had completed the intervention reported fewer child behaviour problems, lower stress, less family life disruption, and greater confidence in preventing behaviour problems and in teaching their child new skills compared to wait listed parents (Feldman & Werner). No significant difference was found between parents who had completed the program over 2 years ago to parents who had more recently completed the intervention, which suggests that these positive outcomes are maintained over time (Feldman & Werner).

These studies provide support for the use of PAT and CMT in the treatment of child behaviour problems for children with disabilities delivered on an individual basis. Improvement in child behaviour problems and parenting skills appears to be a consistent finding across studies. Despite these positive results, less research has examined whether parent training programs delivered in a group format could offer a more cost effective approach in managing challenging behaviour problems. The research that does exist in this

area has mostly focused on typically developing children with a few studies examining the efficacy of group delivered parenting programs with children with disabilities.

Barlow and Stewart-Brown (2000) reviewed the literature on group-based parenting programs for typically developing children aged between 3 and 10 years and found positive results. Of the 16 studies that met the inclusion criteria, all showed improvements in parent-reported child behaviour problems following the completion of the intervention. Independent observations of children's behaviour were also shown to improve compared to control conditions with the exception of one study. The majority of treatment gains were maintained over time from 6 months to 3 years. Similarly, Webster-Stratton (1990) found treatment gains to be stable for a group of parents of typically developing conduct disordered children who had participated in a group-based parenting program, *The Incredible Years*, which combined video-tape modelling and therapist led group discussion. Improvements in pro-social behaviour and decreased problem behaviour were found to be stable at the 3 year follow up. The group-based parenting program which combined video-tape modelling was found to be superior to self administered video-tape modelling and group discussion alone (Webster-Stratton).

Barlow and Coren (2001) reviewed the literature on the effectiveness of group-based parenting programs on maternal psychosocial health outcomes and found that depression, anxiety/stress and marital relationships were improved in the short term while self-esteem improved in the long term. Parental outcomes such as improved attitudes to mealtimes, knowledge of parenting strategies and parent-child communication have also been reported in the general parent training literature (Bunting, 2004).

To further support the benefits of group-based programs, Cunningham, Bremner, and Boyle (1995) completed a cost analysis and found group-based programs to be six times more cost effective than individually administered programs. Seligman (1993) suggests that group work with parents of children with disabilities offers many advantages including the opportunity for parents to share their unique situation with others who have common experiences and feelings. The commonalities between group members' experiences and feelings may therefore reduce feelings of isolation and lead to the development of new friendships and social companionship. A group approach also allows parents to gain a certain level of acceptance as they begin to acknowledge that other parents are confronted with the same difficulties as they experience. Rather than always being on the receiving end of help, a group approach also provides parents with the opportunity to provide other parents with tips and ideas that they have found useful in their own parenting role (Seligman, 1993).

In the area of intellectual disability, Tavormina's (1975) early study examining 51 mothers with children with intellectual disabilities (average 6.7 years old) is notable considering its sound design and positive outcomes. Mothers were assigned to a reflective counselling group, behaviour management group or a control condition. The reflective counselling group involved group discussion around issues such as feelings, acceptance and learning how to set limits and provide alternative activities. The behaviour management group taught parents behavioural techniques with an emphasis on the family's specific situation. The treatment group comprised eight weekly 1 ½ hour sessions. Results showed improvements for both treatment groups in areas of total behaviour problem scores and sleep disturbance for children compared to the control condition. Significantly less aggressive child behaviour and a greater sense of parenting confidence were reported by mothers in the behaviour management group compared to both the reflective group and the control condition. The findings also showed

that the behaviour management group was superior to the reflective and control condition in terms of appropriate interactions, appropriate response consequences and child compliance during observations. No improvements were found for parenting behaviour during observations for the reflective discussion group (Tavormina).

In another early study with a sound research design, Brightman, Baker, Clark, and Ambrose (1982) randomly assigned 66 parents of children (*Mean age* = 6 years) with moderate to severe intellectual functioning deficits to three different conditions; a group format, individual format and a control group. The group condition comprised nine 2 hour sessions while the individual condition involved nine 1 hour sessions. The parent training program focused on teaching new skills and ways to manage problem behaviours. Results showed that both treatment condition parents showed significant improvements in their knowledge of behaviour modification principles, self help skills and play skills compared to the control condition. Improvements in child behaviour problems were found to be equal across the two treatment conditions but significantly better than the control condition. These results suggest that family gains are observable irrespective of the mode of the delivery.

Baker and Brightman (1984) examined a group-based parent training program with families of children with moderate to severe disabilities and showed promising findings. Parents (n = 15) were randomly assigned to either a "parents as advocates program" or a "parents as teachers program". Both programs involved weekly 2 hour meetings for seven weeks. The "parents as advocates program" focused on teaching parents their rights and responsibilities and included video tape presentations, problem solving and small group discussion. The "parents as teachers" program was similar but focused on parental self help skills and

behaviour modification techniques. The results showed parents gained skills specific to the program they attended. Advocacy-related knowledge was significantly greater for parents who had completed the "parents as advocates program" while knowledge of behavioural techniques were significantly greater for parents who had completed the "parents as teachers program". Despite these positive outcomes, no child outcomes measures were taken and therefore it is unknown whether these gains in knowledge influenced child behaviour (Baker & Brightman, 1984).

Following on from this study, Prieto-Bayard and Baker (1986) reported favourable results for a group-based parenting program designed for Spanish speaking parents of children with disabilities (*Mean age* = 6.6. years). Parents were randomly assigned to a 10 weekly, 2-hour intervention program or to a delayed training control group. Training targeted the management of behavioural problems and ways to teach self-help skills. Small presentations, videotapes, and group discussions were part of the training sessions. Results showed that intervention group parents reported significant improvements in their child's behaviour problems compared to control group parents. Intervention group mothers also reported greater improvements in their knowledge of behavioural management techniques and their ability to successfully implement them at home compared to control group parents (Prieto-Bayard & Baker).

Baker and his colleagues (1991) examined the effectiveness of a group-based 11 session parent training program focusing on self help skill teaching and behaviour problem management. Participating families had children between 2 and 11 years old with moderate to severe intellectual disabilities. Groups occurred across a 16 week period and lasted for

approximately 2 hours. No control group was adopted. Significant increases in parental skills of behavioural techniques and significant improvements in parental depression, stress, and parent and family problems were apparent for participating families. Consumer satisfaction rated by parents was also found to be high (Baker et al.).

In comparison, Chadwick, Momcilovic, Rossiter, Stumbles, and Taylor (2001) compared brief individual parent training, group parent training and a control condition using a sample of parents of primary school-aged children with severe learning disabilities and behavioural problems. Parents in the group parent training were invited to attend five 2 hour weekly sessions. Groups consisted of 4-6 parents. Individually-based intervention sessions occurred every fortnight for approximately 2 hours, for a total of 5-7 sessions. All parent sessions focused on understanding childhood problem behaviours, increasing desirable behaviours, managing misbehaviour, and problem solving potential obstacles (Chadwick et al.). Results showed that parents in the individual parent-training group reported greater reductions in the severity of behaviour problems and less management difficulties compared to parents in the group condition and the control condition. No significant difference was found between groups for frequency of behaviour problems at the follow up. These results must be viewed with caution due to the significant difference found between the number of sessions that families in the individual intervention attended (95% seen for >5 sessions) compared to the number of sessions attended by parents in the group intervention (40% seen for 5 sessions) (Chadwick et al., 2001).

Hudson et al. (2003) developed a family centred program for parents of children with intellectual disabilities, *Signposts*, which aimed to reduce children's challenging behaviour

and increase parents coping resources. This intervention concentrated on providing a flexible delivery of resources through group support, telephone contact or self-directed means such as videos. Participating families (*Mean age of child* = 10.11 years) were allocated to one of the three different delivery modalities or a wait list control. An information booklet, videotape, and workbook were provided to intervention group families. The booklets covered topics such as measuring children's behaviour, systematic use of everyday interactions, replacing difficult behaviour with useful behaviour, planning for better behaviour, teaching new skills, dealing with stress and working as a team (Hudson et al., 2003). Parents in the group mode received six fortnightly sessions. Parents in the telephone support group received a twenty-minute phone call on a fortnightly basis while the self-directed mode did not receive any therapist contact. Mothers in all three intervention groups reported significantly lower levels of stress compared to control group mothers. Intervention group mothers also reported feeling more confident and better able to manage their children compared to control group mothers. In terms of child outcomes, parents in the intervention groups reported less challenging behaviour including destructiveness and antisocial acts in their children compared to children of control group parents. No significant differences were found among the three intervention groups for any of the outcome variables (Hudson et al., 2003).

Similarly, Tonge, Kiomall, MacKinnon, and King (2006) investigated the efficacy of two different education and skills training programs for parents of children with autism aged 2 ½ to 5 years old. Parents were randomly assigned to one of three conditions; 1) parent education and behaviour management training (PEBM) 2) parent education and counselling training (PEC) or to a 3) non-intervention control group. The PEBM intervention consisted of education about autism, behaviour management techniques, teaching new skills, and grief and stress management strategies. Videos, role-playing, workbooks, homework exercises, and

group discussion were included. In comparison, the PEC intervention involved group discussion without the skills development and strategies provided in the PEBM intervention. Parents in the control group received their usual service delivery. Both intervention programs included ten 90 minute group sessions followed by 10 individually administered one hour sessions with each family. Parents in both interventions conditions experienced improvements in their adjustment and well-being compared to parents in the control condition (Tonge et al., 2006). Although the PEBM intervention included information on principles of managing behaviour, no measure was adopted to examine childhood behaviour problems following the completion of the program.

A recent study examining the effectiveness of a group-based parent training program for pre-school children with developmental disabilities and behavioural problems has shown several promising findings (Quinn, Carr, Carroll, & O'Sullivan, 2007). Parents were assigned to either a wait list control group or a treatment group which comprised six weekly 2 hour sessions. The program focused on teaching parents positive behavioural techniques and ways to better manage problem behaviours. Significant improvements on the total difficulties scale of the Strengths and Difficulties Questionnaire for the treatment group were observed compared to a slight increase from pre-test to post-test for the control group at post-test. Intervention group effects were maintained at the 10 month follow up. All parents expressed satisfaction with the program and showed significant goal attainment. No significant pre-post differences were found between groups in the areas of child behaviour problems as assessed by the Child Behaviour Checklist, family functioning, parental perceived social support and family stress (Quinn et al., 2007).

The available literature on group-based parenting programs for children with disabilities is limited. However, it appears that parent training offered to families with a child with a disability in a group format leads to positive outcomes for both parents and children (Gavidia-Payne & Hudson, 2002) with the exception of the results found in Chadwick and colleagues' (2001) study whereby the individually administered program was found to be more beneficial. However, this result can be at least partially explained by the level of attendance. Despite the lack of studies examining group based interventions within the disability population, parent training programs utilising a group design have a long history, with many studies examining the efficacy and effectiveness of outcomes in typically developing populations. The next section will review one example of a parent training program, namely the Triple P – Positive Parenting Program, which has a sound empirical basis from a vast number of published research studies.

3.4.1 Triple P - Positive Parenting Program

The Triple P - Positive Parenting Program (Triple P) is an example of a multi-level behavioural family intervention that has been evaluated over the last 25 years, both on an individual and group basis (Sanders, 1999; Sanders, Mazzucchelli et al., 2004b). Triple-P focuses on providing parents with a range of techniques and skills in order to promote parental confidence and reduce the risk of the development of behavioural, and emotional problems in children aged 0-12 years (Sanders).

Triple P offers a diverse range of interventions, from tips sheets and videos to intensive individualised home visitations and group seminars. This program encompasses a number of

theories relating to family mechanisms including social learning principles, information processing models, developmental psychopathology, and applied behaviour analysis (Sanders, 1999). Results from numerous evaluation studies have found positive effects both for parent and child outcomes in different delivery modalities and with different family samples including remote and rural families (Connell, Sanders, & Markie-Dadds, 1997), step families (Lawton & Sanders, 1994), and families with children with developmental delays and oppositional defiant disorder (Sanders, 1999; Sanders & Plant, 1989). Children from maritally discordant homes (Dadds et al., 1987), children with ADHD (Bor et al., 2002), children of depressed parents (Sanders & McFarland, 2000), and children at risk for abuse and neglect (Sanders, Pidgeon et al., 2004) have also been found to benefit from the Triple P parent training methods. Families completing the Triple P program have also reported high satisfaction and acceptance levels. A recent meta-analysis of the Triple P-Positive Parenting Program found child behaviour and parenting outcomes as reported by parents to have moderate to large effects for all forms of Triple P. Standard Group Triple P was found to have a medium effect size when compared to a waitlist control (Thomas & Zimmer-Gembeck, 2007).

Furthermore, the efficacy of group-based Triple P has been well established. Hoath and Sanders (2002) randomly assigned parents of children aged 5-9 years with Attention-Deficit/Hyperactivity Disorder to a group-based version of Triple P and a wait list control. Results showed that intervention group parents reported less disruptive child behaviour problems, less aversive parenting practices and more confidence and self-efficacy compared to control group parents at post-test. Rates of parental depression, anxiety and stress did not differ between groups but rather declined for both groups from pre-test to post-test. The

positive results found for disruptive child behaviours and parental self-efficacy in the intervention group were maintained at the 3 month follow up.

Ireland et al. (2003) found similar outcomes by comparing two group versions of Triple P, namely Standard Group Triple P and Enhanced Group Triple P, with a group of parents experiencing marital difficulties and behaviour problems in their children. Parents in both groups reported reductions in child behaviour problems and parenting conflict. In addition, parents indicated that after completing the programs their parenting style, communication and relationship satisfaction had improved.

Extending these findings further, Zubrick and colleagues (2005) implemented a group version of Triple P to a large-scale population of parents with pre-school aged children living in Perth, Western Australia. Parents from the East Metropolitan Health region of Western Australia formed the intervention group while parents from the South Metropolitan Health region formed the comparison group. Community and child health nurses, social workers, health promotion officers and psychologists implemented the program to groups of approximately 10 parents who were provided with workbooks and a video to support the implementation of the program in the home. Participating parents were invited to attend four 2 hour training sessions followed by four 15-minute follow up phone calls (Zubrick et al., 2005).

Results showed that intervention group parents reported less dysfunctional parenting behaviour and less parent reported child behaviour problems at post-test compared to comparison group parents and these results were maintained at the 12 and 24 month follow-ups (Zubrick et al., 2005). Intervention group parents also reported improved mental health,

less conflict over child rearing and greater marital adjustment post-intervention and these results remained significant at the 12 and 24-month follow ups. Satisfaction with the program was found to be good with approximately 98% of participants rating the program as average or better (Zubrick et al., 2005).

Similar to the project conducted in Perth, Dean, Myors and Evans (2003) investigated the efficacy of the group version of Triple P in a large scale study conducted in South East Sydney. Professionals such as teachers, nurses, social workers, psychologists and welfare workers were trained and facilitated the 8-session program to 560 participants in groups of approximately 5 – 14 parents. Significant improvements in child behaviour problems were observed and this result was maintained at the 6 and 12 month follow-ups. Conflict over parenting, dysfunctional parenting practices and parental adjustment scores all improved following the program and these gains were maintained at all assessment points. Client satisfaction scores were also found to be high (Dean, et al. 2003).

A group version of Triple P has also been shown to be effective in the workplace (Martin & Sanders, 2003). Participants included staff employed (> 20 hours) by the University of Queensland who had children aged between 2-9 years with behaviour problems. Participants were randomly assigned to the intervention program or to a wait list control. The Work Place Triple P Program included four two-hour sessions followed by four follow up phone calls. Sessions focused on increasing children's competence and development and also targeted the management of misbehaviour. Parents in the wait list condition received the program approximately 8 weeks after the intervention group. Results showed that intervention group parents reported fewer intense behaviour problems, less dysfunctional parenting practices,

greater confidence in child rearing and more self-efficacy at post-test compared to parents in the wait list group and this result was maintained at the 4 month follow up. Levels of work stress and parental distress also improved for the intervention parents at follow up compared to the waitlisted parents (Martin & Sanders).

More recently, Bodenmann, Cina, Ledermann, and Sanders (2008) randomly assigned families to one of three different conditions; Group Triple P, Couples Coping Enhancement Training (CCET) or an untreated control condition. Group Triple P involved 4 weekly 2 ½ hours sessions followed by four telephone follow ups. In comparison, CCET focused on improving marital satisfaction, communication, and problem solving abilities. This program was offered in a group format as a weekend workshop. The untreated control group did not receive any services. Results showed that although parents in the CCET condition reported improvements in marital quality, dysfunctional parenting, and child problem behaviour, parents enrolled in the Group Triple P condition reported significantly stronger effects in parenting skills, parental self esteem and child problem behaviours compared to the other two conditions (Bodenmann et al., 2008).

In summary, the positive outcomes associated with the group based version of Triple P have been firmly established with many different family samples. Reductions in childhood behaviour problems, greater confidence in parenting and improved communication and parenting skills have been shown to be maintained over time. Therefore the empirical evidence that has emerged for the parent training methods employed in Triple P makes this program a sound choice when considering parent training approaches.

3.4.1.1 Stepping Stones Triple P.

Stepping Stones Triple P (SSTP) is a recently developed early intervention program adapted from the Triple P – Positive Parenting Program to reduce challenging behaviours in young children (2 – 12 years) with intellectual and other developmental disabilities (Sanders, Mazzucchelli et al., 2004b). Similar to the Triple P, SSTP offers a multi-level approach, which provides flexible service delivery depending on the support requirements of each individual family. The primary aims of the program include reducing child behaviour problems, reducing coercive and punitive parenting practices, and increasing family protective factors such as coping skills, problem solving skills and family communication patterns (Sanders, Mazzucchelli et al., 2004b). Although SSTP incorporates the same underlying theoretical principles as Triple P, several key adaptations have been made to the content to ensure that it is suitable to families with a child who has a disability. A particular emphasis is placed on adjusting to having a child with a disability, being part of the community and learning skills that are particularly relevant to having a child with a disability (e.g. using visual cues or setting up activity schedules) (Sanders, Mazzucchelli et al.). Also different from the regular Triple P content is the emphasis placed on the functional component of behavioural problems for children with disabilities.

Individual SSTP consists of ten 60-90 minute sessions which incorporates assessments, strategies for promoting children's development, managing misbehaviour, planned activities training and a closure session (Sanders et al., 2003). Parents attend the sessions without their children and receive a step-by-step workbook that covers the material from all sessions. Video demonstrations and practice sessions are also incorporated into the program. Parents are

taught strategies to increase desirable behaviour while at the same time learn how to effectively manage misbehaviour (Sanders, Mazzucchelli et al., 2004b). A complete review of the strategies used in SSTP interventions is outlined in Sanders et al. (2003).

In order to examine the effectiveness of the individualised SSTP, Roberts, Mazzucchelli, Studman, and Sanders (2004) conducted a randomised control trial with a group of parents whose children displayed a range of developmental disabilities including cerebral palsy, Down syndrome and non-specified developmental delays. Parents of 48 children aged 2-7 years old were randomly assigned to an intervention group or to a usual care control group. Intervention group parents received 10 individually administered sessions which incorporated sessions on causes of childhood problems, promoting childhood development, managing misbehaviour, dealing with high risk situations, generalisation, maintenance and relapse (Roberts et al., 2004). In comparison, parents in the usual care control group received their normal physiotherapy, speech and occupational therapy services. No support was provided for behaviour management.

Results showed that both independent observers and parents who completed the Stepping Stones program reported fewer behaviour problems in children, less child oppositional behaviour and less child non-compliance compared to parents of control group children (Roberts et al., 2004). Improvements in discipline strategies were found for both mothers and fathers in the intervention condition at post-test and the 6 month follow-up including higher rates of praise. Stress levels for intervention group mothers were also significantly reduced from pre-test to the 6 month follow-up compared to control group mothers. No effects were found for general family functioning, marital satisfaction or inter-parental conflict at any

assessment point (Roberts et al., 2004). The control group received the intervention program after the post-intervention assessment and showed similar results.

Following on from Roberts et al.'s (2004) evaluation, Plant and Sanders (2007) compared the effectiveness of Stepping Stones Triple P – Enhanced (SSTP-E), Stepping Stones Triple P – Standard (SSTP-S) and a wait list control with a sample of pre-school aged children and their families. Each family was randomly assigned to one of the intervention groups and attended sessions individually on a weekly basis. The standard program included ten, 60-90 minute sessions, and incorporated the same content as the program offered in the Roberts, Mazzucchelli et al. study. The enhanced program consisted of sixteen 60-90 minute sessions and included the same modules as the standard program but also incorporated additional sessions on issues such as grief, stress management, strengthening support networks and how to effectively liaise with professionals (Plant & Sanders). Parents in both the SSTP-E group and the SSTP-S group reported significant improvements in child problem behaviour at post-test and this was maintained at the 12 month follow-up. Similarly, parental satisfaction and competence significantly improved for both intervention groups compared to the wait list control. Parents in the enhanced intervention reported significant improvements in the amount of child behaviour problems present during care-giving compared to the SSTP-S and the wait list group (Plant & Sanders). Fewer disruptive child behaviour problems and greater parenting skills were reported by parents in the SSTP-S group compared to the SSTP-E and wait list group. These findings were maintained at the 12 month follow-up. Parental mental health and family adjustment did not change as a result of either of the SSTP interventions. Fewer disruptive behaviour problems and less problem behaviours during care-giving provide partial support for the superiority of the enhanced intervention program (Plant & Sanders).

To further support the application of the SSTP program, Whittingham, Sofronoff, and Sheffield (2005) studied a sample of parents with children aged 3-13 years diagnosed with an Autism Spectrum Disorder to examine the acceptability of the program. The primary aim of the study was to determine parents' reactions to the SSTP program and the strategies taught within the program. The overall results showed that parents found the program and the strategies helpful and user-friendly. The most accepted strategies included praise, using rewards, behaviour charts, ground rules, diversion and logical consequences.

The results from these studies suggest that overall SSTP leads to positive outcomes for both parents and children, including reductions in childhood behaviour problems, and improvements in parental adjustment and self efficacy. In addition, parents who participate in the program also seem to find the information and strategies useful and beneficial to their individual family's needs. Based on the success of the individually administered SSTP, the cost of mental health services and the increasing number of families who fail to obtain help for their child's problems has led to the development of new group-based programs. Group-based programs offer parents opportunities for friendship, increased social support and encouragement (Graziano & Diament, 1992; Roberts et al., 2003). Group participation also allows parents to gain support and feedback from other families in similar situations leading to the validation of their current experience (Sanders, 1999).

3.4.1.2 Group based Stepping Stones Triple P.

Group SSTP is a nine session program which involves five 2-½ hour weekly sessions followed by three 15-20 minute follow up phone calls and a review session. The five group-

based weekly sessions focus on teaching parents strategies to promote childhood development and to better manage misbehaviour (Sanders, Mazzucchelli, & Studman, 2005). Parents are encouraged to practice different strategies at home and report back to the group as part of their homework exercises. The three telephone sessions are directed by parents and are a way of providing individualised support to families. After the three follow-up phone calls are complete, a final review session is provided (Sanders et al., 2005). The final session can be completed either over the phone or as a group session. (see page 118 for a complete description of the program's content). This program is designed to be conducted with groups of 10-12 parents with an emphasis on active participation through discussion, practice and feedback (Sanders et al., 2005).

Two recent evaluations have been conducted on the Group SSTP program showing promising outcomes. Harrison (2006) randomly assigned 28 families of children with developmental disabilities to the group SSTP program or to a usual care control group. Children ranged in age from 18 months to 5 years and had been given diagnoses such as an Autism Spectrum Disorder, Down syndrome, sensory impairment, global developmental delay, Cerebral Palsy, Genetic Deletion Disorder and Attention Deficit Hyperactivity Disorder. Parents in the treatment group received the group version of SSTP while parents in the usual care control group continued to receive their usual early intervention services such as psychotherapy, occupational therapy and speech therapy. However, access to behavioural support was available to control families upon request. Treatment group parents reported greater improvement in their parenting styles and less intense disagreements over parenting compared to parents in the usual care control group. Parents who had completed the program were found to have a greater sense of confidence and competence in their parenting skills compared to parents in the usual care control group. Fewer child behaviour problems were reported by

both groups of parents at post-test. However, compared to parents in the usual care control group, a greater number of parents in the treatment group reported reliable change in the intensity of their child's behaviour. Despite these promising outcomes no significant findings were found for parental depression, anxiety or stress (Harrison, 2006).

Myers (2007) found similar findings using a sample of families recruited from a government disability support agency and Education Department Educational Support Centres in Perth, Western Australia. A cohort design was used where control group families were recruited from the same government agencies, one year after the intervention group. Parents in the intervention group participated in the group SSTP as part of this larger study. Similar to Harrison's (2006) findings, Myers found a significant difference between intervention and control group parents' disciplinary styles at post-test. Intervention group parents were showing more appropriate parenting styles by being more firm, over-reacting less often and being more succinct in their explanations. However, like Harrison's (2006) findings, Myers (2007) did not find a significant effect on child behaviour problems or parental adjustment measures.

In summary Group SSTP is a relatively new adjunct to the Triple P – Positive Parenting Program that shows some promising preliminary findings especially in relation to parents' disciplinary style, sense of self efficacy and confidence. There is a need for additional research to replicate and extend these findings. Future studies should attempt to adopt a randomised control design with a larger sample size.

3.5 Summary

This chapter provided an overview of the various treatment approaches designed to address challenging behaviour problems in children and adolescents. The review focused on parent training and demonstrated that this approach is the most extensively studied intervention for externalising behaviour problems. The advantages of parent training were outlined including empowering parents to make their own changes, increasing family communication, parental confidence and skills and providing parents with a core role in the intervention process. The extensive literature pertaining to parent training showed that this type of intervention leads to many positive outcomes for both parents and children. For example many studies revealed improvements in child behaviour problems, greater child play and on task behaviours, reduced parental stress and improved parenting practices. These positive outcomes have been demonstrated for both younger and older children, across an array of childhood difficulties, with moderate to large effects. The additional benefits of group-based parent training were outlined with a particular focus on the cost benefit and the shared support commonly found between parents.

The available literature on group-based parenting programs for children with a disability was limited. However, the studies that do exist have generally showed positive outcomes. Several studies failed to measure a child behaviour outcome or showed little behaviour change which is a considerable limitation. The extensive literature relating to the Triple P-Positive Parenting Program revealed that group-based Triple P has been well established with results showing reductions in child behaviour problems and improvements in parents' own skills and practices. Stepping Stones Triple P, an adaptation of Triple P, which is specifically designed

for families with a child with a disability was discussed. Research showed that individually administered SSTP leads to reductions in childhood behaviour problems, and improvements in parental adjustment and self efficacy. Results from two studies examining group-based SSTP found improvements in parents discipline styles yet no significant effect was found for child behaviour problems or parental adjustment scores.

Despite the extensive literature and strong empirical basis for parent training approaches, many families still fail to experience positive outcomes. Not all studies examine measures of child behaviour outcomes, and clinical significance and reliable change outcomes are often missing from the literature. The findings outlined in this chapter provide a basis to discuss the barriers and negative treatment outcomes that are sometimes associated with different treatment approaches. Understanding the components that are associated with program effectiveness will significantly contribute to the current research.

CHAPTER FOUR

Parent Training and Therapy Process Variables

4.1 Introduction

Despite the positive effects found for both parents and children following different parent training interventions, a significant proportion of families fail to experience successful outcomes (Assemany & McIntosh, 2002). Engaging families in parent training programs continues to be a major challenge. High dropout rates, poor parental engagement and participation, and failure of families to maintain long term benefits after an intervention are common problems (Assemany & McIntosh, 2002; Littell et al., 2001; Miller & Prinz, 1990). Furthermore, although a large body of literature exists supporting the efficacy and effectiveness of parent training programs for both typically developing children and children with disabilities, little is known about the mechanisms of change or the processes that create change in treatment (Kendall & Choudhury, 2003). To date, none of the existing research involving children with disabilities has examined dropout, therapy process variables, or the therapeutic alliance, and the influence of these variables on treatment outcomes. Therefore many questions remain unanswered regarding the mechanisms by which treatment works best for what particular clients and in what particular settings (Littell et al., 2001).

Although research has begun to shift towards the examination of therapy processes and the impact of these variables on treatment outcomes, especially in the health care and adult psychotherapy fields, the available research has been hindered by inconsistent definitions of

process variables such as attendance, engagement, therapeutic alliance and treatment success (Littell et al., 2001; McKay & Bannon, 2004; Nock & Ferriter, 2005). In addition, the research that is available has tended to focus on "variables of convenience" such socioeconomic status and parental psychopathology, and many of the variables have been studied in isolation making comparisons across studies difficult (Karver et al., 2005; Kazdin, 1996; McKay & Bannon, 2004). A greater understanding of the process of parent training should provide new avenues for engaging difficult to reach families and maintaining them in treatment, and will strengthen the interventions that are currently available (Eaton-Hoagwood, 2005; Karver et al., 2005).

Karver et al.'s (2005) recent review of youth and family therapy, identified the following as important process variables: client and therapist pre-treatment characteristics; therapist interpersonal skills, including self disclosure, and direct influence skills; affect towards the therapist, willingness and participation in treatment; and the therapeutic relationship with clients. Several authors have proposed conceptual models of client participation and treatment process with an aim of consolidating this information into a concise framework within which future research can be conducted (Karver et al., ; Littell et al., 2001). Littell et al's. (2001) model (see Figure 1) suggests that important pre-treatment characteristics of the client, therapist and external environment influence client participation and in turn impact on treatment outcomes. This model also suggests that client beliefs, perceptions of treatment and alliance formation with the therapist impact on the level of participation in treatment. The next section will explore and discuss these variables and their impact on attendance, dropout, parental engagement and participation, and the therapeutic alliance.

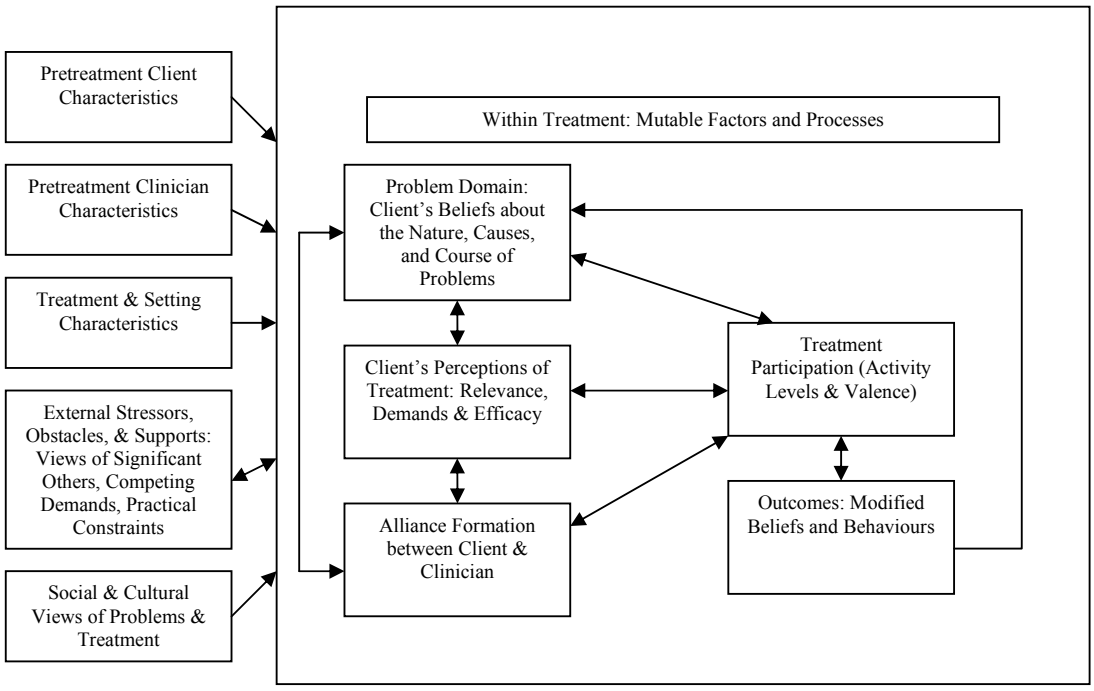

Figure 1. A conceptual model of treatment participation (Littell et al., 2001, p.15)

4.2 Attendance and Premature Dropout

Attendance at therapy sessions is critical to the process of intervention (Nock & Ferriter, 2005). Nock and Ferriter (2005) define treatment attendance as the "delivery of the agreed upon treatment participants (e.g., parent, child, family, etc.) to the treatment setting for the scheduled appointments" (p. 151). The treatment setting may differ depending on the treatment and the service provider, with sessions being held in the clinic, community, on the phone or in the family home. Several researchers have examined the impact of rates of attendance on therapy outcomes. Reid, Webster-Stratton, and Baydar (2004) examined the influence of parental attendance at parent training sessions on parenting behaviours and found that 38% of mothers who attended 0-2 sessions reported significant reductions in their critical statements compared to 54% of mothers who attended three or more sessions. Similarly,

Baydar, Reid, and Webster-Stratton (2003) found that the more sessions parents attended, the greater improvements that were found in their positive parenting skills, despite positive changes being found for parents after the completion of just three sessions.

Zubrick and colleagues (2005) found similar results with a large group of parents enrolled in group-based Triple P in Western Australia. All parents were offered the complete program which included four 2-hour group sessions followed by four-15 minute follow up phone calls. Although a total of nine intervention hours were offered, parents only undertook an average of 7.8 hours (Zubrick et al., 2005). Results showed that parents who received 7 hours or more of the program reported lower levels of anxiety, depression and stress compared to parents who received less than 7 hours. However, group participation had no significant influence on child behaviour outcomes (Zubrick et al., 2005). Contrary to the above findings, Lundahl et al. (2006) examined 63 peer-reviewed parent training studies and found child and parent outcomes were not associated with time in treatment or the number of sessions attended.

Attendance rates are not always consistent, with many studies reporting high dropout rates (Assemany & McIntosh, 2002). Premature termination is defined as "…the situation in which a patient has made a unilateral decision to stop coming to therapy, which is contrary to the initial expectations, a contract or the recommendation of the therapist" (Piper et al., 1999 p. 114). Kazdin (1996) argues that the definition of premature termination or dropping out is diverse and has many limitations. Kazdin (1996) suggest that the term "premature" is misleading in that many clients experience notable improvements after attending a very short period of therapy and therefore termination at that stage may not be considered premature. Secondly, it is argued that there is no standard rule for the amount of therapy a client must complete before they are considered "completers" or at what point a client finishes treatment

to be considered as a “dropout”. Due to these varied definitions, comparisons across studies have been difficult. McKay and Bannon (2004) also suggest that the ambiguous results found in many dropout studies may be the result of people who have dropped out at different stages of treatment being lumped into the same “dropout” or “completer” category.

A review conducted by Forehand, Middlebrook, Rogers and Steffe (1983) found an average attrition rate of 28% for participants in parent training interventions between 1972 and 1982. Of the studies that were examined, 49% reported dropout rates and only 20% reported the dropout rate by group. Participants were more likely to dropout during the assessment stage compared to the treatment stage of the intervention (Forehand et al., 1983). More recently, Assemany and McIntosh (2002) reported a dropout rate between 8% and 48% for parents enrolled in behavioural parent training. Dropout rates as high as 40-60% have also been reported for families starting parent management training programs (Kazdin, 1996; Pekarik, 1992; Prinz & Miller, 1996; Scott, 2002; Wierzbicki & Pekarik, 1993). Pekarik (1992) examined two dropout samples 1) adult dropouts and 2) parents of child dropouts, and found that the most commonly reported reasons for ending treatment prematurely were improvements in the presenting problems, practical difficulties, and dislike or disappointment with the therapist or the therapy.

Kourany, Garber, and Tornusciolo (1990) found that 11-35% of clients do not turn up to initial appointments, despite having requested therapy services. Previous involvement in therapy and shorter waiting periods increased the likelihood that clients would attend their clinic appointments. It was also found that different forms of contact, namely a phone call (14.3%), letter (11.1%) or both (13.3%), decreased the percentage of clients not turning up to therapy appointments (Kourany et al.).

High parental dropout has significant effects for families, communities, clinicians, and researchers. Families who do not complete treatment often do not show progress and generally do not obtain the therapy services that they require (Kazdin, 1996; Weisz, Weiss, & Langmeyer, 1987). This failure to obtain therapy services may create additional problems in both the family system and the community due to the persistence of childhood disorders into adulthood (Prinz & Miller, 1996). Clinicians spend a considerable amount of time and energy recruiting, screening, and assessing clients for therapy services. Therefore, premature dropout causes a considerable waste of resources (Piper et al., 1999; Weisz et al.). From a research perspective, dropout can also be associated with the difficulties of reductions in statistical power, validity, reliability, and generalisability of results (Piper et al.).

4.3 Parental Engagement and Participation

Several different constructs have been used to describe parental participation and engagement in treatment studies in the social work and psychology fields. These terms include parental treatment investment, homework completion, parental effort and involvement, therapy engagement, treatment adherence, on-task behaviour, parental up-take of programs, collaboration and cooperation (Karver et al., 2005; Nock & Ferriter, 2005). Macgowan (1997) suggests the term engagement is multi-dimensional and incorporates several core elements including attendance, contributing to the group, relating to the group leader, relating to other group members, collaborating on goals and tasks, working on own problems and working on others' problems. In comparison, Karver and colleagues (2005) define parental participation as "…cooperating with, being involved in, making decisions about, and/or completing therapeutic tasks …completing therapeutic homework and in-session assignments…verbally discussing feelings and experiences in session and responding to therapist requests." (p. 44).

Defining client participation is complex as a client may often choose to participate and be actively involved in one aspect of the treatment whilst resisting and being non-compliant with another aspect (Littell et al., 2001). This complex interaction between involvement and resistance can be different for each individual client. Therefore a comprehensive definition of client participation should attempt to include both subjective and objective measures of client participation (Littell et al., 2001). For example, a comprehensive definition may include both an objective measure such as a record of attendance and a subjective measure which focuses on clients' expectations and attitudes about attending a particular treatment.

Although this construct is important to the process of therapy, engaging parents in parent training workshops and obtaining their full commitment and participation has typically been difficult. Parent training interventions are characterised by irregular attendance, poor homework completion, frequent cancellations, and many delays with parents arriving late for scheduled appointments (Prinz & Miller, 1996). Client non-compliance and resistance are also very common. Parents may refuse to participate in role-plays or may interact with the therapist in a way which is characterised by blaming, challenging, disagreement and/or hopelessness (Chamberlain & Baldwin, 1988). Stoolmiller, Duncan, Bank, and Patterson (1993) suggests that parental resistance occurs when a therapist begins to teach parents new skills and strategies. Stoolmiller et al. (1993) argues for the struggle and working through hypothesis which suggests that parents who show heightened rates of resistance at the beginning of treatment, but who also make a shift in their level of resistance by problem solving or working through their difficulties as treatment continues, are likely to benefit more from therapy.

Chamberlain, Patterson, Reid, Kavanagh, and Forgatch (1984) examined client resistance in a parent training program for 27 families referred for child behaviour problems. Client resistance was coded using a videotaped coding system. Results showed that higher levels of observed resistance were associated with less successful outcomes. Parents who experienced decreases in their observed levels of resistance from pre-test to post-test reported a 30% or greater reduction in the frequency of child behaviour problems (Chamberlain et al., 1984).

The difficulties defining client participation and resistance reflect the multidimensional nature of these constructs. Lack of client participation or client resistance may reveal a mismatch between the client's needs and those of the therapist, or it may suggest a shift in the client's willingness or readiness to begin change.

4.4 Influences on Attendance, Treatment Engagement and Participation

A diverse range of variables have been examined which may contribute to, and be predictive of engagement and participation in intervention programs (Lundahl et al., 2006; Reyno & McGrath, 2006; Snell-Johns, Mendez, & Smith, 2004). However, research results have varied considerably and few sound models or theories exist. Kazdin, Holland and Crowley (1997) provide one notable exception with the development of the Barriers-to-Treatment model, and a scale to measure these barriers (Barriers to Treatment Participation Scale). This model suggests that the identified barriers to treatment contribute to the outcome of treatment above that of client, family and environmental characteristics, which have been more extensively studied (Kazdin et al., 1997). The barriers to treatment participation are measured by a scale which includes stressors and obstacles that compete with treatment, treatment demand and issues, perceived relevance to treatment, the relationship with the therapist and a critical

events component which incorporates events such as moving house, family breakdown, family death or hospitalisation. Kazdin et al. (1997) examined a group of families in treatment for child behaviour problems and found that families who dropped out reported significantly more barriers to treatment participation than families who completed treatment. The barriers to treatment participation accounted for additional variance in dropping out that was not accounted for by other family characteristics (Kazdin et al.).

Having a clear understanding about the mechanisms and interactions of these participation barriers will allow clinicians to provide a better fit between hard-to-reach families and various intervention services. This in turn will increase parental participation and promote a more cost-effective use of resources (McCurdy & Daro, 2001; Reyno & McGrath, 2006).

4.4.1 Client Characteristics

There are many individual level factors, including child psychopathology, parental mental health, family environment, and parental attributions and expectancies, that have been found to be associated with poor treatment outcome or early dropout rates, yet studies fail to show consistent results (Karver et al., 2005; Lundahl et al., 2006; Reyno & McGrath, 2006; Snell-Johns et al., 2004). Low socioeconomic status has been found to predict negative treatment outcomes such as heightened behaviour problems and poor child adjustment (Kazdin, 1990; Kazdin & Wassell, 1999; Webster-Stratton & Hammond, 1990). Single parent status and low education levels have also been found to be associated with premature termination (Kazdin; Webster-Stratton & Hammond). In a recent meta-analysis of 63 peer reviewed parent training studies, Lundahl et al. (2006) showed that economically disadvantaged children, and children with single parents, were less likely to show significant child behaviour change compared to

children without these family characteristics. Kazdin and Mazurick (1994) found similar findings with a sample of families with a child aged 4-13 years who was displaying externalising behaviour. Terminating treatment early was more common for young mothers, single parents, and parents of non-biological children. Early termination of treatment was also associated with minority status, poor living conditions, heightened levels of stress and increased child impairment.

Other studies have also found parental psychopathology and severity of the child's impairment to significantly predict attrition levels. Kazdin and Wassell (1999) recruited families with a child showing elevated levels of externalising behaviour and found that families were less likely to benefit from outpatient parent training when parental psychopathology, stress, and severity of child dysfunction were high. Heightened parental depression made a significant contribution to the prediction of poor child adjustment and increased behavioural problems in children following a 10 week parent training program (Webster-Stratton & Hammond, 1990). Kazdin (1990) also found that families completing more than 75% of sessions were likely to show fewer child behaviour problems at pre-test and have lower levels of maternal depression compared to families that failed to complete treatment. Contrary to these findings, Lundahl et al. (2006) found greater changes to occur following parent training for children showing clinically significant levels of externalising behaviour problems at pre-test. These discrepant findings may be accounted for by differences in the populations sampled and different intervention programs.

Additional factors such as race and poor family communication have also been associated with poor treatment gains. In Perrino, Coatsworth, Briones, Pantin, and Szapocznik's (2001) study, parents were less likely to become engaged if they were African American, and if their

household income was low. In terms of family variables, the results showed that families with low order, poor organisation and poor family communication as measured by the Family Relations Scale, were less likely to attend the first group sessions. Kazdin (1990) and Webster-Stratton and Hammond (1990) also found stress in relationships and martial conflict to predict poor treatment outcomes. Interestingly, Perrino et al.'s (2001) study revealed that family variables were stronger predictors of engagement than demographic variables, need for intervention variables and barriers to participation variables. However, contrary to the findings mentioned above, Garcia and Weisz (2002) failed to find a difference between dropouts and completers in terms of child's age, child gender, ethnicity, socioeconomic status or child psychopathology. These findings are further supported by Lundahl et al.'s (2006) review which found child's age to be unrelated to child behaviour outcomes. Moreover, research has also found other factors such as mother's age, children's IQ score, adaptive functioning, perceived relevance of treatment, stressful life events, poor child attachment, history of aggressive behaviour and family inflexibility to be associated with fewer treatment gains and premature termination (Kazdin, 1990; Kazdin & Mazurick, 1994; Kazdin & Wassell, 1999; Reyno & McGrath, 2006).

Despite poor treatment outcomes associated with demographic variables such as socioeconomic status, living conditions, and parental adjustment variables such as stress and depression, Morrissey-Kane and Prinz (1999) argue that parental expectations, attitudes, attributions and beliefs may predict treatment response, participation, and commitment to therapy. Parental perceptions about the cause of childhood behaviours are considered to have a significant impact on participation in therapy. For example, if parents view child behaviour problems as stable and unchangeable then gaining parents' participation in skill development

and behaviour modification strategies is likely to be difficult (Hassall & Rose, 2005; Morrissey-Kane & Prinz, 1999; Roberts, Joe, & Rowe-Hallbert, 1992).

Shuman and Shapiro (2002) examined parental expectancies in a sample of parents preparing for child psychotherapy and found accurate expectancies to be associated with a greater number of kept therapy appointments. Contrary to these findings, Peters, Calam, and Harrington (2005) failed to find a difference between mothers with child-responsible attributions and mothers with parent-responsible attributions in terms of attendance or completion of therapy (Peters et al., 2005). Morrissey-Kane and Prinz (1999) suggest that help seeking and service utilisation are predicted more strongly by parental beliefs surrounding family hardship caused by childhood psychopathology rather than the actual severity of a child's symptomatology.

Consistent with the studies of typically developing children, Chavira, Lopez, Blacher, and Shapiro (2000) examined parents of developmentally delayed children, and their emotional reactions and attributions of responsibility regarding their child's problem behaviour. The overall results showed that parents tended to rate their child as not being responsible for their behaviour. However, when children displayed externalising behaviour, parents were more likely to attribute the behaviour to the child rather than themselves and were more likely to respond unfavourably. Stratton and Swaffer (1988) found similar results when comparing attributions among mothers of physically abused children, mothers of handicapped children and mothers of typically developing children. Mothers of handicapped children were more likely to view their children as having little control over their behaviour compared to the mothers in the other two groups.

These studies have implications for clinical practice in that parents may need to be encouraged to recognise that their child is responsible for at least some of their actions and that they can learn parenting strategies to better manage the problem behaviour. Woolfson (2004) also argues that some parents of children with disabilities may need support in redefining their beliefs surrounding the concept of their child's disability in order to better manage their child's behaviour and provide opportunities for their child to learn new skills. Given the above information, it appears that parental beliefs have a significant effect on all aspects of the therapy process including help seeking, treatment engagement, and treatment outcome (Morrissey-Kane & Prinz, 1999).

4.4.2 Environmental and Intervention Characteristics

Other aspects and dimensions of therapy beyond that of the individual child or family are also likely to predict therapeutic change and outcomes in parent training. Differences in family, home, and school factors are likely to promote or reduce the therapeutic change expected following therapy services (Snell-Johns et al., 2004). The clinic setting and/or the delivery of intervention services may also influence the outcomes of therapy. Lundahl et al.'s (2006) review of parent training studies showed that the mode of delivery (e.g group versus individual therapy) was a significant moderating factor for child behaviour outcomes. Parents participating in group delivered parent training were found to change significantly less than parents participating in one-on-one parent training programs. Examining the difference between self-directed and face to face modes of delivery revealed no significant findings (Lundahl et al., 2006).

More specifically, Cunningham, Davis, Bremner, Dunn, and Rzasa (1993) compared participants' engagement levels in two different training conditions, namely Coping Modelling Problem Solving (CMPS) and Mastery Modelling (MM), using a coding system know as the Therapy Process Code. Participants were staff members who were currently employed within residential homes which catered for adolescents with intellectual disabilities. The main difference between the two approaches was that participants in the CMPS group were able to discuss their own ideas, solutions and suggestions regarding the video vignettes whereas the group leaders provided this information in the MM groups. Participants in the MM group attended fewer sessions, rated the program less positively, completed less homework, and participated in a more uncooperative manner compared to participants in the CMPS group. Despite these engagement differences, both groups showed improvements in staff performance (Cunningham et al., 1993). This suggests that by reducing the didactic nature of therapy services, other dimensions such as engagement and adherence are likely to be enhanced.

Similar to Cunningham et al., Prinz and Miller (1994) examined the effects of a standard family treatment (SFT) and an enhanced family treatment (EFT) on parental dropout and engagement. The SFT focused on teaching parents to increase their children's desirable behaviour through skill building and reinforcement and decrease undesirable behaviour through the implementation of appropriate discipline techniques. Modeling, role-plays, and feedback were a typical part of this program. In comparison, parents in the EFT group received the same structure and information as the parents in the SFT group but also had the opportunity to discuss broader contextual issues such as job difficulties, personal worries, health problems and their feelings about attending therapy sessions (Prinz & Miller).

A significantly larger proportion of families in the SFT group (46.7%) prematurely dropped out compared to parents in the EFT (29.2%). Dropouts from the SFT group (26%) were more likely to report dislike and disapproval with the program as the primary reasons for dropping out compared to dropouts from the EFT group (6%). Overall, dropouts were less likely to complete homework, participated less in sessions, and missed a greater number of scheduled appointments compared to parents who completed the training (Prinz & Miller, 1994). The above results suggest that the mode of delivery can play a significant role in the outcomes of parent training for certain families.

Whether or not a client is satisfied with treatment or the intervention is socially valid is also likely to be associated with treatment outcomes. Foster and Mash (1999) suggest that understanding the social validity and level of consumer satisfaction is an important adjunct to examining program efficacy. Several studies have shown client satisfaction levels to be associated with decreases in symtomatology and progress in treatment (Ankuta & Abeles, 1993; LaSala, 1997). However, other studies have failed to find an such an association (Barrett, Shortt, & Wescombe, 2001; Ries, Jaffe, Comtois, & Kitchell, 1999). The inconsistent findings in the literature may be the result of different client satisfaction surveys, and different length and type of treatment programs.

Another important component of therapy which is likely to influence treatment outcomes is the quality and quantity of homework completion (Kazantzis, Deane, & Ronan, 2004). A study examining the use of homework by practicing psychologists in New Zealand found that 98% reported the use of homework with clients in their normal therapy sessions (Kazantzis & Deane, 1999). Kazantzis, Deane and Ronan (2000) examined 31 studies and demonstrated that homework completion was positively associated with improvements in therapy. This

result was found across different homework assignments and across different client groups. Similarly, Rees, McEvoy, Juniper, Nathan, and Smith (2003) examined a group of depressed and anxious patients and found that the quality and quantity of homework completion was associated with both depressive and anxiety symptom relief. A link between homework compliance and motivation for therapy has also been found in a study of adults receiving cognitive behavioural therapy (Helbig & Fehm, 2004). Bryant, Simons, and Thase (1999) found homework compliance was positively associated with symptom reduction in a group of adults showing moderate to severe depression who were attending a 16 week cognitive therapy program. More recently, Wyatt Kaminski (2008) conducted a meta-analytic review using 77 studies on the components associated with parent training program effectiveness and found that written, verbal or behavioural homework assignments were not predictive of child or parent outcomes.

Similar to the external stressors category outlined in Littell et al.'s (2001) model, other environmental aspects such as difficulties obtaining transportation, or child care, time demands, extensive travel time and conflicting appointments may also hinder the participation and engagement of families in parent training programs (Spoth, Goldberg, & Redmond, 1999). For example, Beckham (1992) examined a group of outpatients seeking assistance from a medical school mental health clinic and found that practical problems were the most frequently endorsed reason for ending treatment prematurely. Reis and Brown's (1999) review demonstrated that administrative variables such as intake interview length, changing clinicians, appointment reminders, and the amount of elapsed time between assessment and therapy may also predict poor treatment response. McKay and Bannon (2004) found that contextual factors such as waitlist length and transportation difficulties predicted poor engagement with services. Similarly, Greeno et al. (2002) found that time until the first

appointment was important when predicting the return of children to treatment in a community mental health system. Results showed that if appointments were scheduled within 3 weeks of the initial interview then clients were more likely to return for a subsequent visit.

4.4.3 Therapeutic Alliance and Theoretical Background

The terms "therapeutic alliance", "working alliance", "therapeutic relationship" and "helping alliance" are often used interchangeably. The definition of therapeutic alliance differs depending on the specific psychological orientation (Saketopoulou, 1999). Green (2006) describes the therapeutic alliance as an overarching term used to define the various interactional factors that operate between a client and a clinician during the delivery of an intervention. Gelso and Carter (1985; 1994) have adopted the broad definition of therapeutic alliance as "… the feelings and attitudes that counselling participants have toward one another, and the manner in which these are expressed" (p. 159). Despite inconsistencies, most definitions include collaboration and negotiation between the therapist and the client (Saketopoulou).

Bordin's tripartite model of therapeutic alliance focuses on the mutual agreement between the therapist and client (Bordin, 1979; Horvath & Greenberg, 1989; Johnson & Wright, 2002). It consists of three main concepts: bonds, goals, and tasks. Bonds refer to the relationship between the client and the therapist, namely trust, acceptance, confidence, respect and caring. Goals are determined collaboratively with both the therapist and the client contributing equally to goal development, thus enhancing investment and accomplishment. Therapists' techniques and ability to pace sessions and engage clients in activities within therapy are referred to as tasks (Bordin, 1979; Johnson & Wright, 2002). Bordin suggested that the

importance of the three aspects of the model may change depending on the phase of therapy and for different psychological interventions (Bordin, 1976).

While client, environmental, and intervention characteristics play an important role in the effectiveness of treatment, the characteristics of the therapist and the therapist-client relationship are paramount to beneficial treatment outcomes and program success. Experiencing a poor bond or resistance in the therapeutic relationship may increase the likelihood of premature termination and poor treatment outcomes (Horvath & Symonds, 1991; Marshall et al., 2003; Martin, Garske, & Davis, 2000). Therapeutic engagement has been shown to be enhanced when therapists display high verbal abilities, specialist knowledge, and greater knowledge of diagnostic issues. Studies have also shown stronger therapeutic engagement when the therapist is matched to the client in terms of race, gender, socio-economic status, and life experience (Ackerman & Hilsenroth, 2003; Harpaz-Rotem, Leslie, & Rosenheck, 2004; Orrell-Valente, Pinderhughes, Valente, & Laird, 1999; Reis & Brown, 1999).

A review examining adult therapeutic alliance studies revealed that the therapeutic alliance is moderately related to treatment outcomes ($r = .22$) (Martin et al., 2000). Horvath and Symonds (1991) found similar findings ($r = .26$) when factors such as type of therapy, length of treatment, type of outcome measured or number of participants in the study were considered. The positive relationship between a good therapeutic alliance and treatment outcome has been extensively documented in the adult literature within a diverse range of disorders and across a variety of psychology disciplines.

Piper et al. (1999) examined the therapeutic alliance in adult outpatients and found that while there was no significant difference between dropouts and completers on any of the demographic or pre-therapy ratings, compared to participants who continued with therapy, dropouts were more likely to rate the therapeutic relationship at the beginning of treatment as poor. Consistently, therapists examining the final session of participants who dropped out were more likely to report weaker therapeutic alliance ratings (Piper et al.). Examining the dropout group further also revealed several behavioural features including greater levels of passive and active resistance, verbal disagreements, and little productive therapy work (Piper et al.).

Therefore the relationship between the therapist and the client appears to impact on client participation and whether clients continue with therapy sessions. Similarly, Samstag, Batchelder, Muran, and Winston (1998) demonstrated that both therapist and client ratings of the therapeutic relationship in short term psychotherapy distinguished dropouts and clients demonstrating both poor and good outcomes. Alliance scores were the lowest for the dropout group compared to the poor outcome and good outcome groups. Clients in the dropout group rated therapists as significantly less friendly compared to clients in the good outcome group. Dropout clients were also rated by therapists as showing significantly greater levels of hostility compared to clients in the good outcome group. Likewise, Tyron and Kane (1993) found that unilateral termination was significantly predicted by therapist ratings of the working alliance after the third session. Clients who did not terminate unilaterally were given higher alliance ratings by therapists compared to those who terminated unilaterally. However, in comparison to Piper et al.'s (1999) and Samstag et al.'s (1998) studies, client ratings of the therapeutic alliance did not predict termination. The results from Beckham's (1992) study contradict this finding showing that the rate of dropout was significantly predicted by clients'

perception of the rapport between therapist and client. Although many studies have reported a link between therapeutic alliance and premature termination, not all studies have yielded consistent results. Kokotovic and Tracey (1990) failed to find a significant relationship between alliance ratings and termination when rated by therapists in a sample of adult clients and therapists at a counselling centre. The inconsistent findings in the literature may be the result of different definitions used to define the dropout and completer groups. The timing of the alliance measure, what alliance measure is adopted, the population sampled, skill of the therapist, and the characteristics and length of the intervention are also likely to contribute to different findings.

4.4.3.1 Parent – therapist and child – therapist alliance.

Despite the promising results found within the adult psychotherapy literature, studies examining the process of therapy in the child domain have lagged behind considerably. Kazdin, Bass, Ayers and Rodgers (1990) examined the child and adolescent psychotherapy literature, revealing that therapeutic process was examined in only 2.7% of studies. Although the adult literature suggests that the therapeutic relationship is critical to the outcomes of therapy, little attention has been given to the understanding of the therapeutic relationship between parents and the child therapist. This is noteworthy given that a vast majority of parents play a significant role in the well-being and treatment of children (Kazdin et al., 1990).

Shirk and Karver's (2003) meta-analytic review included 23 studies examining relationship variables in child and adolescent therapy. Similar to the adult literature, the results revealed that the therapeutic alliance is moderately related to treatment outcomes (r = .24). Findings

also suggest that the relationship between alliance and treatment outcome is stronger when the alliance is measured late in therapy, when the alliance rating was made by the therapist or parent, and for children showing externalising disorders (Shirk & Karver, 2003).

Of particular importance, is the therapeutic alliance between therapists and parents. Adler (1998) examined the therapeutic relationship between therapists and parents who had a child between the ages of 5 and 17 years who were undertaking treatment at a child mental health clinic. Overall treatment outcomes, including decreased child externalising behaviour problems, attendance and dropout rates were significantly positively related to parents' rating of the therapeutic alliance (Adler, 1998). McLeod and Weisz (2005) examined the parent-therapist relationship using an observational coding system and found similar results with a sample of families recruited from community mental health clinics. Therapy sessions were video-taped and observers coded four sessions from each participant according to the definitions outlined in the Therapy Process Observational Coding System for Child Psychotherapy – Alliance Scale. Results showed that a strong parent – therapist alliance was associated with improvements in child internalising symptomatology including anxiety and depression symptom relief (McLeod & Weisz, 2005).

Kazdin, Whitley and Marciano (2006) found similar findings in a sample of families attending parent management training, referred for oppositional, aggressive and antisocial behaviour. Strong parent-therapist alliance ratings were associated with significantly greater parenting skills and child behaviour. Strong child-therapist alliance ratings were also associated with greater improvements in child behaviour. Therapist ratings of stronger parent-therapist alliance also related to greater therapeutic change in the child. Kazdin and Whitley (2006)

also found greater improvements in parenting practices in a similar sample of families when the quality of the parent-therapist alliance was better.

In comparison, Hawley and Weisz (2005) and Shelef, Diamond, Diamond and Liddle (2005) found strong parent-therapist alliance ratings to be associated with family participation and retention rates, while only strong child-therapist alliance ratings were associated with improved child symptomatology. Likewise, Tolan, Hanish, McKay, and Dickey (2002) examined the relationship between therapist-parent alliance and family treatment outcomes in a sample of families attending an outpatient mental health unit. Parenting practices improved significantly more for parents who reported a stronger therapist-parent alliance early in therapy. In turn the results revealed that child behaviour problems measured at the end of therapy were significantly related to improved parenting practices (Tolan et al., 2002).

In summary, individual client, environmental, intervention, and individual therapist and relationship characteristics have been studied to investigate the impact on therapeutic alliance, with most studies examining variables in isolation. However, the literature is plagued by inconsistent definitions, different samples and different methodology making comparisons across studies difficult and concrete conclusions difficult to draw. The next section reviews additional studies on engagement and attendance and examines the impact on treatment outcomes.

4.5 Outcome Studies Associated with Parent Treatment Engagement and Attendance

Well designed studies examining parental attendance and treatment engagement are scarce. In most studies, process variables have not been the primary aim of the study, rather secondary outcomes, thus reducing the integrity and impact of the results. Interest in this area has just started to grow with researchers combining several process variables into one study. Having a greater understanding about how families engage and participate in programs may allow clinicians to increase the participation and retention rates for troubled families.

Spitzer, Webster-Stratton, and Hollinsworth (1991) examined parents' participation in parent training qualitatively across time and found that parents progressed through different phases of treatment participation, namely "*acknowledging the family's problem*", "*alternating despair and hope*", "*tempering the dream*", "*making the shoe fit*", and "*coping effectively*". Parents reported experiencing a realisation that their child was different during the first phase of therapy. During this phase, parents also reported feelings of inadequacy, frustration, fear of losing control, isolation and rejection (Spitzer et al., 1991; Webster-Stratton & Herbert, 1994). Parents in the "alternating despair and hope" phase had already learnt several new skills to better manage their children, which created a sense of guilt for some parents but also provided a sense of hope that these new skills could be used to cope more effectively with difficult behaviour. Parents expressed happiness as the new skills and strategies began to work and often expressed unrealistic expectations about the persistence required in parenting and the impact on other family difficulties (Spitzer et al.).

The “tempering the dream” phase for parents included the experience of setbacks such as difficulties with the non-target child, marital stress and conflict over parenting issues and intense feelings of anger and disbelief when children returned to the same behaviour they displayed prior to the beginning of the program (Spitzer et al., 1991). These setbacks made some parents resistant to the program. During this phase parents began to acknowledge that their child’s difficulties were long-term and there was no “quick fix” available. The next phase, “making the shoe fit”, primarily involved parents manipulating the program to suit the individual needs of their family and learning to generalise the skills to other settings and other children in the family.

Parents in the “coping effectively” phase reported being able to acknowledge the continual commitment that parenting requires, and being able to deal with the feelings of anger, embarrassment, and despair more effectively (Spitzer et al., 1991). Parents also reported having a greater sense of warmth and empathy for their child’s point of view. Parents acknowledged that in order to maintain the energy to parent their children, time out away from their children was needed. Because parents reported feeling more confident and stronger in their parenting role they were also able to actively seek additional support thus reducing isolation.

Similarly, Levac, McCay, Merka, Reddon-D’Arcy (2008) examined parents experiences of a group-based parent training program known as the *Incredible Years Parenting Program* using a qualitative interview protocol. Families were referred to the program for high levels of child aggressive behaviour with the focus on increasing child pro-social behaviour, parental confidence, and coping skills. Parents were interviewed within one month of completing the 12-week program. Results from the interviews revealed that parents valued the group,

experienced improvements in their child's behaviour and their own attitudes about parenting. Parents reported feeling supported within the group and an increased level of awareness with their own parenting practices. Parents reported many positive experiences including new skills and behaviours in their children and improved family relationships. These results suggest that the process of change for parents in group-based parent training may be improved when families feel supported and are given the opportunity to reflect on their role as a parent (Levac et al., 2008).

Baydar et al. (2003) examined the relationship between parental engagement and treatment outcomes in a sample of parents with multiple risk factors including anger problems, depressive symptomatology, poor parenting practices, and substance abuse. The aim of this study was to determine whether psychological risk factors impacted on the way parents engaged or participated in parenting programs and the effects on treatment outcomes (Baydar et al.). Program engagement was defined using three criteria; attendance at sessions, homework completion, and therapist-rated involvement in sessions. Results showed that parenting skills improved more for parents who attended more sessions, completed more homework, and actively involved themselves in therapy sessions. Engagement in therapy was higher for mothers with risk factors such as harsh/negative parenting, inconsistent/ineffective parenting and mental health problems (Baydar et al.).

Following on from this study, Reid et al. (2004) examined whether greater levels of child behaviour change was predicted by mothers' levels of engagement. Program engagement was assessed as defined in the Baydar et al. (2003) study, namely attendance, homework completion, and participation in group discussions. Results showed that program engagement as rated by independent observers was associated with significant improvements in child

behaviour difficulties. Conduct problems declined by 17% when observer-rated program engagement increased by one standard deviation (Reid et al.). Despite these positive results no significant associations were found between mothers' rated program engagement and child behaviour outcomes. Results also showed that greater child conduct problems predicted greater program engagement by mothers (Reid et al.).

Similarly, Dishion, Li, Spracklen, Brown, and Haas (in press) as cited in Eddy, Dishion, and Stoolmiller (1998) examined the engagement levels of families with children aged 11-14 years who were involved in a program designed to improve parent-child interactions and reduce child antisocial behaviour. Findings revealed no association between parent-reported engagement variables and child behaviour outcomes. However, results showed increased knowledge and acquisition of parenting skills were associated with parental attendance and homework completion rates. However, these engagement variables were not significantly associated with childhood behaviour outcomes or parent child interaction outcomes. Furthermore, the most change observed in parents occurred for parents who did not actively participate in the program's behaviour change discussions (Eddy et al., 1998). This suggest that researchers need to focus on the examination of individuals' emotional reactions, interpersonal expectations, thoughts, and environment factors in order to better understand the behaviour change process for parents.

Contrary to these findings, Nye, Zucker, and Fitzgerald (1995) examined the link between maternal participation and therapy outcomes with a sample of mothers completing a prevention program designed to prevent conduct problems in children of alcoholic fathers. Families were randomly assigned to one of two treatment groups, "mother only" group, "both parents" group, or a control condition. The 10-month intervention program focused on

teaching parents strategies to improve the parent-child relationship and ways to solve marital conflict. Therapists rated engagement by weekly homework completion, therapist-client cohesion and the observed level of commitment and engagement of parents within sessions (Nye et al.). Overall attendance rates were also recorded to determine treatment participation rates. Parent overall engagement scores were used to classify parents into three groups, low overall involvement group, moderate or high overall involvement groups. Results showed that mothers who completed the program and had high engagement scores experienced a significant improvement in their child's behaviour problems, whilst mothers who completed the program but only had low to moderate engagement scores, showed no significant child behaviour change. These results suggest that treatment engagement may be a necessary factor for positive change to occur and merely completing the program is insufficient (Nye et al., 1995).

Nye, Zucker and Fitzgerald (1999) further examined the link between therapy process variables and therapy outcomes using a sample of families with an alcoholic father and a son below primary school age. The same intervention described in the Nye et al. (1995) study was implemented and the same treatment engagement and participation variables were used. Treatment engagement was a significant predictor of improvements in child behaviour problems and positive parenting practices at all assessment points. A significant association was also found between parent and therapist satisfaction with the intervention and child behaviour problems and positive parenting practices at post-test. Parent satisfaction was also predicted by early engagement rates (Nye et al., 1999).

More recently, Garvey, Julion, Fogg, Kratovil, and Gross (2006) examined the engagement rates of parents completing an 11 week group-based parenting program designed to promote

positive child behaviour in pre-school aged children, and found engagement rates to be linked to treatment outcomes. Engagement was rated by the group leader and was defined as attendance at group sessions, active participation in the group sessions, and non-resistant uptake and application of the program's principles. Results showed that parental engagement scores significantly predicted improvements in parental depression and child behaviour problems.

In contrast to the studies above, Green (1996) used a therapist rating of engagement, finding a similar association between engagement and treatment outcomes with a group of parents/children completing therapy in an outpatient facility. Therapists' global rating of engagement was determined by examining several dimensions of client behaviour, including level of attendance, involvement in within-session activities, and a commitment to the personal relationship with the therapist. Parents' engagement in treatment as rated by the therapist was found to significantly predict treatment outcomes. In addition, parental therapeutic engagement was predicted by parents reports of the warmth and empathy expressed by the therapist (Green, 1996).

Other researchers have also examined the link between attendance and therapy outcomes. August, Realmuto, Hektner, and Bloomquist (2001) examined a program designed to prevent aggressive behaviour in kindergarten children and found that rates of attendance were associated with therapy outcomes. Parents were classified as either the high dosage group (> 50% of session attended) or the low dosage group (< 50% of sessions attended). Results showed that parents in the low dosage group reported no significant change in their disciplinary practices, which was similar to the results reported by control group parents. In

comparison, significant improvements in disciplinary practices were reported by high dosage parents (August et al., 2001).

Similarly, Spoth, Redmond, Haggerty and Ward (1995) investigated the link between attendance effects and therapy outcomes with a sample of families completing a five session intervention program designed to prevent juvenile substance abuse and conduct problems. Results showed that mothers attended an average of four sessions while fathers attended an average of 3.4 sessions. Results also showed that attendance rates for both mothers and fathers were associated with greater improvements in parenting skills such as clear communication, ground rules, applying consequences, providing engaging activities and child monitoring (Spoth et al.).

4.6 Summary

The literature reviewed in this section provides a solid foundation for the examination of process variables in parenting interventions with families of children with disabilities. Engaging families is a continual challenge. High dropout rates, poor parental engagement and participation, and failure of families to maintain long term benefits are common problems in clinical settings. Research in this area has been hindered by inconsistent definitions of attendance, engagement, therapeutic alliance and treatment success. Very few conceptual models of client participation and treatment process exist. Littell's et al.'s (2001) model is one exception, which suggests that pre-treatment characteristics from the client, therapist, and external environment, influence client participation and in turn treatment outcomes. Client beliefs and alliance formation are also likely to impact on treatment outcomes.

Many studies examining different factors have been found to influence attendance, treatment engagement and participation. Economically disadvantaged children and children from single parent families are less likely to benefit from therapy. Family conflict, parental psychopathology, and poor family communication are also likely to impact on treatment outcomes. Environmental and intervention characteristics such as mode of delivery, transportation, childcare facilities and time demands are important factors to consider when trying to engage families. Research in the child domain has demonstrated a moderate relationship between the therapeutic alliance and child treatment outcomes. More importantly, strong parent-therapist alliance ratings have been shown to be associated with greater child improvements and parenting skills. Studies examining engagement and treatment outcomes have shown promising results with higher engagement scores being associated with greater improvements in parenting skills and child behaviour difficulties.

Client participation within and between sessions and the impact on treatment outcomes are the main focus of the current study. Client participation is being measured through attendance, homework completion and verbal participation. The impact of other processes including parents' perceived level of satisfaction with the group program and the strength of the therapeutic alliance between the parent and the group facilitator are also being examined. By having a clearer understanding about the processes that allow empirically supported interventions to work, researchers and clinicians will be able to provide better quality services to families in need (Kendall & Choudhury, 2003). This is particularly important for families with a child with a disability.

CHAPTER FIVE

Aims and Rationale

5.1 Introduction

Children with disabilities are at a much greater risk of developing challenging behaviour problems compared to non-disabled children (Baker et al., 2002; Baker et al., 2005; Baker et al., 2003; Emerson, 2001). Families with a child with a disability and co-morbid behaviour problems face many additional challenges including heightened stress, depression and anxiety. Leisure time, family work commitments and sibling relationships are also affected. Challenging behaviour problems in children with disabilities also create concerns for the wider community including increased use of resources such as respite, and greater out of home placements.

The previous chapters have discussed a range of interventions for challenging behaviour problems in children with disabilities. However, parent training approaches appear to be the most empirically supported choice. Parenting training has been shown to lead to many positive outcomes for both the child and the parent in many different family samples with good evidence of treatment gains. Parent training also has the additional advantage of being family-centred which allows parents to be empowered to make changes within their own family (Graziano & Diament, 1992; Lundahl et al., 2006; Roberts, Mazzucchelli, Studman, & Sanders, 2006; Rodgers-Wiese, 1992; Scott, 2002).

Few systematic evaluations of process variables and the impact on treatment outcomes using an empirically supported intervention currently exist. Although researchers have begun to shift their attention to the processes of therapy, few studies have investigated processes with therapists working with parents and their children (Karver et al., 2005; Kazdin & Nock, 2003). As a result this study was designed to address the gap in the literature by examining the relationship between the parent and the child therapist using a combination of between session and within session therapy process variables.

5.2 Aims and Rationale

The major aim of this study is to investigate therapy process and the impact on outcomes for families with a child with a disability attending a group-based parent training program known as Stepping Stones. Examining the processes through which an intervention produces change extends the boundaries of clinical research (Kendall & Choudhury, 2003). Although measures of mediator variables are considered a desirable standard in efficacy and effectiveness studies, few studies have examined these effects, even in current research (Flay et al., 2005). Research in this field has primarily focused on the efficacy of interventions using quantitative measures with few studies examining the process of therapy and the personal experiences of participants (Levac et al., 2008; Nelson & Steele, 2006; Spitzer et al., 1991).

Kazdin (2000) argued that although research into child and adolescent therapy has advanced in recent years, mechanisms of change and the processes that explain how therapy works are typically absent from the literature. Very little is known about how therapy works or how change is achieved within child and adolescent therapy (Karver et al., 2005). Having a deeper understanding of the processes by which families engage and the mechanisms of change, may

provide opportunities for new interventions to be developed or avenues to improve existing interventions thus leading to better quality services (Kazdin & Nock, 2003). Favourable outcomes such as increases in retention, more active participation, improved clinical outcomes, and client satisfaction are likely to be a result of greater therapy process research being conducted (Hoagwood, 2005).

Several conceptual models of client participation and treatment process have been developed which provide a framework in which current and future studies can examine therapy process variables (Karver et al., 2005; Littell et al., 2001). These models argue that pre-treatment characteristics impact on client participation and cooperation, which in turn impacts on treatment outcomes. Client participation encompasses homework completion, session attendance, and parent verbalisations during therapy sessions (Karver et al., 2005). Both conceptual models show that alliance formation or the therapeutic relationship between the client and the clinician also impacts on treatment outcomes. Given that client participation is a complex phenomenon, these models provide a theoretical foundation for the inclusion of the therapy process variables used in the current study. Having multiple measures of client participation is likely to provide a robust indicator of how parents with a child with a disability behave and respond to a group-based behavioural family intervention.

The pre-treatment characteristics used to predict premature termination in the current study were based on evidence from previous studies examining typically developing conduct disordered children. Economically disadvantaged families, increased child impairment, history of mental illness and increased parental distress have all been shown to be linked with poor treatment outcomes or early dropout rates (Kazdin & Mazurick, 1994; Kazdin & Wassell, 1999; Lundahl et al., 2006; Snell-Johns et al., 2004). Although research in the

disability area is scarce Dickson et al. (2005) found poverty, poor family functioning, and mental health problems increased the risk of externalising behaviour problems for children with a disability. Therefore these variables were considered to be risk factors for poor treatment outcomes or early termination for families with a child with a disability attending group-based parent training.

Despite the vital role parents play in the treatment and management of childhood difficulties, researchers have only just begun to examine the therapeutic relationship between parents and therapists (De Vet, Kim, Charlot-Swilley, & Ireys, 2003). Kazdin et al. (1990) found parents were involved in their child's or adolescent's therapy in over 30% of cases. Given the important role parents have in their child's therapy and the lack of research in this area, parents' ratings of the therapeutic alliance was considered to be a crucial therapy process variable to examine in this study.

Measuring the therapeutic alliance has proven to be difficult as researchers utilise different alliance measures. The definition of the therapeutic alliance has also differed greatly, making this concept difficult to compare across studies. Differences also exist depending on whether the therapeutic alliance is being measured from the perspective of the therapist, client or observer (McLeod & Weisz, 2005). Martin et al. (2000) found that the Working Alliance Inventory (WAI) (Horvath & Greenberg, 1989) was the most commonly adopted measure in their meta-analysis of 79 studies. Given that this measure has sound psychometric properties and has been used extensively, it was chosen as part of the battery of assessments for this study.

A client rating of the alliance was chosen for this study as the results of Horvath and Symonds' (1991) meta-analysis of 24 studies examining alliance and outcomes in psychotherapy, indicated a stronger association between client ratings of the therapeutic alliance and outcomes compared to therapist and independent observer ratings. The timing of alliance measurement has varied in previous studies. Horvath and Greenberg (1989) asked participants to complete the WAI after the third interview. Saketopoulou's (1999) review of studies suggest that alliance ratings completed early in therapy can be associated with treatment outcomes. Suh, O'Malley, Strupp, and Johnson (1989) found that by the third session the working alliance was firmly established between the therapist and the client. Hence, this early stage of therapy appears to be a suitable time to measure working alliance.

Therapy process was investigated through the participation of parents attending the group-based Stepping Stones Triple P Positive Parenting Program (SSTP-G). This group-based parenting program is designed specifically for families with a child with a disability and aims to increase parents' problem solving skills, coping skills and supportive networks while also teaching parents more effective discipline strategies for problem behaviour (Sanders et al., 2004b). The group SSTP program encompasses several theoretical and conceptual models including social learning models and social information processing models (Sanders et al., 2004b).

The group Stepping Stones Triple P Positive Parenting Program was selected for a number of reasons. Firstly, children with a disability are two to three times more likely to experience challenging behaviour problems (Emerson, 2001). These problems tend to persist into adulthood and create significant concerns for the individual, family and wider community. Many families (> 90%) with a child with a disability also fail to receive the appropriate

treatment and services for their child's problems (Einfeld & Tonge, 1996; Tonge, 1999). Given the prevalence of behavioural problems and the enduring nature of these difficulties it is not surprising that families with a child with a disability are in dire need of user-friendly, evidence-based interventions.

Secondly, given that parent training interventions are known to be one of the most extensively evaluated interventions in the treatment of child and adolescent mental health disturbances, particularly for externalising behaviour problems (Graziano & Diament, 1992; Kazdin, 2005; Maughan et al., 2005), a parent training approach was selected as an intervention for this study. Many advantages exist for parent training including opportunities for greater family communication, increased parental confidence, less parental resistance and more positive parent-child interactions (Briesmeister & Schaefer, 1998). A group-based intervention was adopted due to the additional cost benefits associated with this mode of delivery. However, other benefits also exist including increased social support and interactions, modelling and normalisation of experiences (Einzig, 1999; Sanders, 1999).

Thirdly, the group Stepping Stones Triple P Positive Parenting Program is based on the Triple P Positive Parenting Program and therefore shares many of the same core parenting strategies. The parent training methods employed within the Triple P Positive Parenting Program have been extensively studied over the last 25 years yielding many positive outcomes for both parents and children (Sanders, 1999; Sanders, Mazzucchelli et al., 2004b). In addition, the Triple P program offers a multi-level approach, has a sound theoretical basis, and has been used successfully with many different family samples (Sanders, 1999). The key difference between the two programs is that Stepping Stones has been adapted to meet the individual needs of families with a child with a disability. The SSTP program was specifically designed

for use with families of children with developmental disabilities and there is evidence that it is effective when implemented in both individual family and group-based formats (Harrison, 2006; Myers, 2007; Roberts et al., 2004). The group Stepping Stones-Triple P program is offered as part of regular family support services at the Disability Service Commission in Western Australia. Therefore the research can be completed with the program implementation under normal service delivery conditions. This design feature will support the investigation of program effectiveness.

A core component of the group Stepping Stones Triple P Positive Parenting Program is homework and the continual practicing of parenting strategies outside the group sessions (Sanders et al., 2004b). Studies examining adult populations have consistently found that homework completion is linked to symptom relief and improvements in therapy (Bryant et al., 1999; Kazantzis et al., 2000; Rees et al., 2003). Yet the impact of homework completion has not been investigated for families with a child with a disability attending a group-based behavioural family intervention. Like measures of therapeutic alliance, measures of homework compliance have not been consistently used in the literature (Kazantzis et al., 2004). The Homework Rating Scale (Kazantzis et al., 2004) was employed as the measure of homework compliance in the current study as it is more extensive than other ratings of homework compliance and focuses on both the quantity and quality of homework completion.

Much of the child therapy process literature to date has focused on typically developing children with behavioural problems (Baydar et al., 2003; Webster – Stratton & Herbert, 1994), and has tended to only examine pre-treatment characteristics and the impact on dropout. In addition, the process studies that do exist have tended not to examine the impact of therapy process on child behaviour outcomes (Baydar et al., 2003) or parental adjustment

outcomes, and few studies have examined the relationship between parents and therapists (Karver et al., 2005; Kazdin & Whitley, 2006). Parental adjustment outcomes including parental depression, anxiety and stress are particularly important for parents who have a child with a disability. Studies examining parents of children with a disability have shown greater rates of psychological distress compared to normal controls and these adjustment difficulties have been linked to child behaviour problems (Baker et al., 2002; Lecavalier & Wiltz, 2006; Olsson & Hwang, 2001; Quine & Pahl, 1985; Tomanik et al., 2004).

Therefore, child behaviour problems and parental depression, anxiety and stress were measured quantitatively as outcome variables due to the extensive literature which suggest that children with disabilities are more likely to show challenging behaviour problems and parents of children with disabilities are more likely to display parental distress (Emerson, 2003a; Emerson et al., 2004; Olsson & Hwang, 2001; Ruef et al., 1999; Tomanik et al., 2004). The Developmental Behaviour Checklist (Einfeld & Tonge, 2002) and the Depression, Anxiety, Stress Scale (Lovibond & Lovibond, 2002) were chosen as these measures have been used extensively and have sound psychometric properties. These measures also form part of the battery of assessments recommended by the developers of the SSTP program (Sanders et al., 2003). Disability Service Commission of Western Australia also routinely use these measures as part of their normal service delivery thus making these measures a convenient choice.

5.3 Project Design

This project included three studies focusing on both quantitative and qualitative outcomes. Study one investigated the impact of within session process variables (therapeutic alliance, client satisfaction) and between session process variables (homework completion, parental attendance) on parental and child responses to a group-based behavioural family intervention designed to reduce child behaviour problems. Understanding what aspects of therapy process impacts on child behaviour problems and parental depression, anxiety and stress may provide avenues for increasing the quality of services offered to this population of families thus increasing their life quality and access to the wider community.

Study one examined therapy process exclusively through global questionnaire formats. However, this method has limitations in terms of capturing the entire participation and engagement of parents within therapy. Patterson and Chamberlain (1988) argue that the sole use of questionnaires does not capture the behaviours of clients who are being resistant and reduces the reliability of measures. Previous research examining therapy processes, particularly interactions between the therapist and the client, have typically relied solely on questionnaires (Patterson & Chamberlain). Therefore, in order to obtain a moment by moment understanding of the way families with a child with a disability behave within group sessions and respond to group based parenting programs a second observational study was conducted.

The first stage in Study two involved adopting a coding system known as the Therapy Process Code: A Multidimensional System for Observing Therapist and Client Interactions (Chamberlain et al., 1986) and coding all client and therapist interactions. Although this code was originally developed for use with families of typically developing conduct disordered

children, the presenting behavioural difficulties are similar across the current sample. Furthermore, Bakeman (2000) argues that using common coding devices developed by other researchers enhances the research literature as studies can be compared and replicated. For these reasons, the Therapy Process Code was used with this sample of families with a child with a disability.

The homework review segments of session 2, 3, 4 and 5 were chosen to be video-taped and transcribed as they provided the most representative sample of group interaction, and therapist and client interaction. The remainder of each session primarily involved therapist direction and presentation of information, which would not be useful for observational purposes in this study. The focus of study two involved investigating whether parent verbalisations as coded according to the Therapy Process Code were related to treatment outcomes. All parent verbalisations were coded into two broad categories of resistant and non-resistant behaviours. Analysis was then conducted to see if parental verbalisations predicted child behaviour problems and parental adjustment outcomes for families with a child with a disability attending a group-based behavioural family intervention.

Coding the transcripts of group interaction using the Therapy Process Code provided very descriptive information, yet detailed group interactional processes appeared to be missed with this coding system. Therefore, a third study which involved a second stage of coding using an interpretative phenomenological approach was adopted. This approach was adopted because it aims to "explore how participants make sense of their experiences" (Chapman & Smith, 2002, p. 126). Qualitative research methodology studies focus on studying people in their everyday contexts with a focus on understanding personal meanings and experiences (Berg, 2004). Willig (2001) argues that qualitative approaches offer the opportunity to explore in depth

processes or personal experiences in natural settings. Qualitative research does not aim to predict experiences but rather aims to understand the meaning or experience for an individual or specified population (Flick, 2005; Willig, 2001).

Hence, the third study attempts to bridge the gap in the literature by improving the understanding of the way families with a child with a disability respond to group-based parent training. Study three is unique in that 1) independent observations were taken of parent and therapist interactions and 2) these observations were obtained across time allowing comparisons to be made about how parents change across the four therapy sessions. This second stage of coding generated a detailed list of master themes. This list captured the complete experience of parents with a child with a disability attending a group-based behavioural family intervention.

CHAPTER SIX

Study One

6.1 Introduction

This study was designed to investigate how therapy processes impact on outcomes. Parents attended a group-based behavioural family intervention designed to improve problem solving skills, coping skills, and supportive networks while also teaching parents more effective discipline strategies for child problem behaviour. The therapy process variables of homework completion, attendance, and working alliance were measured quantitatively during group-based parent training. Treatment outcomes included client satisfaction, parent-reported child behaviour problems, and parental depression, anxiety and stress.

6.1.1 Hypotheses

H1: Parents will report lower levels of child behaviour problems at post-test compared to pre-test.

H2: Parents will report lower levels of depression, anxiety and stress at post-test compared to pre-test.

H3: Socio-economic status, severity of child's behaviour problems, poor parental adjustment and family history of mental illness will predict premature therapy termination.

H4: Therapeutic alliance, attendance, client satisfaction, and homework compliance will predict reliable pre-post change in parent-reported child behaviour problems.

H5: Therapeutic alliance, attendance, client satisfaction, and homework compliance will predict reliable pre-post change in parental depression.

H6: Therapeutic alliance, attendance, client satisfaction, and homework compliance will predict reliable pre-post change in parental anxiety.

H7: Therapeutic alliance, attendance, client satisfaction, and homework compliance will predict reliable pre-post change in parental stress.

H8: Therapeutic Alliance, attendance, and homework compliance will predict total client satisfaction.

6.2 Method

6.2.1 Participants

6.2.1.1 Eligibility criteria for inclusion.

The majority of participants were recruited through Disability Services Commission of Western Australia (DSC). To be eligible to access the group Stepping Stones – Triple P program, families had to be registered with DSC and also be eligible for level 3 services. Eligibility for level 3 services involves a diagnosis of intellectual disability and/or autism spectrum disorder.

To be eligible to participate in the study, families had to meet several additional criteria: 1) having at least one child between 1.5 and 15 years old with a recognisable developmental

disability and parent-reported problem behaviour such as tantrums, screaming, aggression, or destructiveness, 2) family adversity and stress had to be minimal as determined by the clinical judgement of DSC clinicians facilitating the group sessions 3) parents had to express a desire to learn strategies to promote a positive parent-child relationship and 4) parents had to be competent at reading at or above a Grade 5 level in English.

Where two parents from one family participated in group sessions only the primary caregiver was included in the analysis to avoid dependencies in the data. This resulted in a total of 79 parents at pre-test who met the inclusion criteria. However, complete pre-and post-test data were available for only 67 participants. See Figure 2 for a breakdown of the recruitment process.

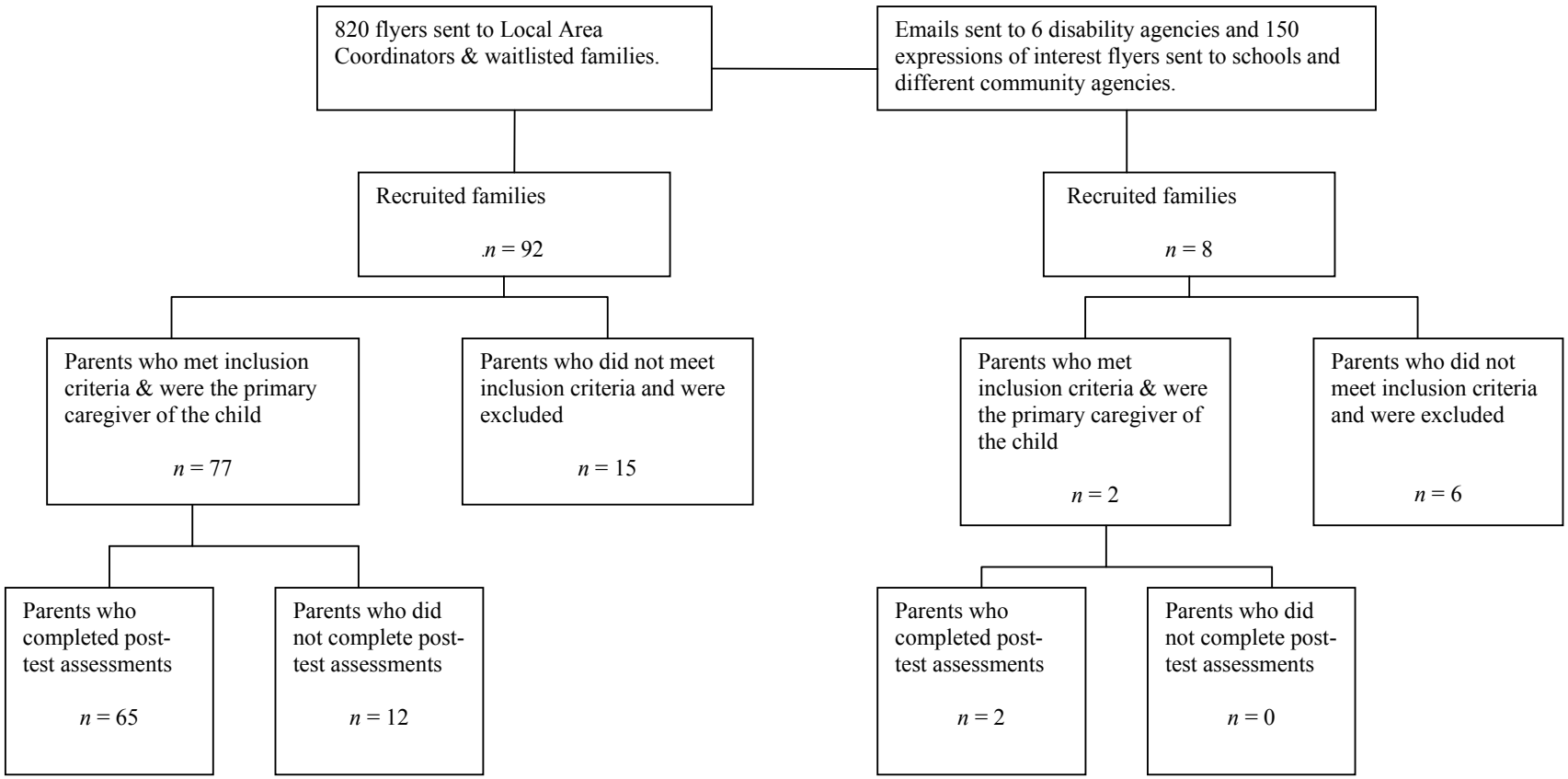

Figure 2. Flow diagram of recruitment process

6.2.1.2 General characteristics of participants.

Participants were 79 parents with at least one child ranging in age from 1.5 to 15 years (*M* = 5.88) living in Western Australia who had a developmental disability and parent reported behaviour problems. Of the parents involved in the study 89.9% (*n* = 71/79) were mothers. The age of the primary care-giver ranged from 28 to 59 years (*M* = 37 years). Approximately 65% (*n* = 49/75) of the families reported being original families (either biological or adoptive parents) while 25% (*n* = 19/75) reported being single parent families.

The most predominant child disability categories as reported by parents included Autism/Pervasive Developmental Disorder (30.7%, *n* = 23/75), developmental delay (21.3%, *n* = 16/75), and intellectual delay (including Down syndrome) (17.3%, *n* = 13/75). Approximately 21% (*n* = 16/75) of parents reported more than one primary disability type. Additional child health problems were reported by 27.8% (*n* = 20/72) of parents. Of the 79 target children involved in the study 30.4% (*n* = 24/79) were female and 69.6% were male.

6.2.1.3 Characteristics of families with a child with a disability.

Over half (64%, *n* = 48/75) of the participating parents were married, 12% (*n* = 9/75) were separated and 9.3% (*n* = 7/75) were divorced. Over one third of the sample lived with an average of four people in the home. Approximately 30% (*n* = 23/76) of the primary care-givers rated their education level as Year 10-11, 22.1% (*n* = 16/76) reported their education as TAFE/college[a] and 18.4% (*n* = 14/76) reported their education as university degree.

Note. The demographic percentages do not have consistent total numbers due to incomplete or missing data; TAFE/college[a] is a government institution providing secondary and tertiary vocational education.

Twenty-six (34.2%) of the primary care-givers were in paid employment. Of those in paid employment, 88% (*n* = 22/25) worked part-time and 12% (*n* = 3/25) worked full-time.

The majority of families (84.9%, *n* = 62/73) reported receiving some form of government assistance. Primary care-givers reported that 74.5% (*n* = 41/55) of their partners were in paid employment, 10.9% (*n* = 6/55) were self-employed and 14.5% (*n* = 8/55) were unemployed. The most commonly reported occupation categories for fathers included manager/administrator (27.5%, *n* = 11/40), tradesperson (22.5%, *n* = 9/40) and professional (15%, *n* = 6/40). Of the working fathers, the vast majority (97.4%, *n* = 37/38) worked full-time.

Over half (50.7%, *n* = 38/75) of the families reported that they did not receive any help for themselves or their partner from a mental health professional in the previous six months, 16% (*n* = 12/75) of parents reported receiving help from more than one professional, 10.7% (*n* = 8/75) reported receiving help from a counsellor, 8% (*n* = 6/75) reported receiving help from a social worker and 6.7% (*n* = 5/75) reported receiving help from a psychologist. Over half (56.9%, *n* = 37/65) of parents reported that they did have a history of mental illness, while 41.5% (*n* = 27/65) reported no history of mental illness and 1.5% (*n* = 1/65) reported that they did not know if they had a history of mental illness. In terms of services accessed for the child, approximately 43% (*n* = 31/72) of parents reported that no other service other than DSC was involved in the care of their child, 37.5% (*n* = 27/72) reported one other service being involved and 12.5% (*n* = 9/72) reported two other services being involved.

6.2.2 Measures

6.2.2.1 Child measures.

Developmental Behaviour Checklist (DBCL) (Einfeld & Tonge, 2002)

The Developmental Behaviour Checklist consists of 96 items relating to behavioural and emotional disturbances in intellectually disabled children aged between 4 and 18 years. Primary caregivers are required to complete the questionnaire by responding to the presence or absence of items in the previous six months (Einfeld & Tonge, 2002). Parents rate their responses on a three-point scale with 0 representing "*not true as far as you know*", 1 for "*somewhat or sometimes true*" and 2 for "*often true or very true*". Several items require parents to provide additional information to ensure reliability and validity are maintained. For example, if parents respond to the item "sees, hears, something which isn't there. Hallucinations" as being present, they are asked to "please describe" the behaviour in more detail. Parents are encouraged to mark any items that that they find particularly worrisome, by underlining (Einfeld & Tonge).

Opportunities also exist for parents to give an overall rating of their child's behaviour. This measure uses a similar structure to the Child Behaviour Checklist and was derived from the assessment of a representative sample of 7000 children and adolescents with a developmental delay living in Australia (Einfeld & Tonge, 2002). The DBCL includes a Total Problem Behaviour score (TBPS) and five subscales including disruptive and antisocial behaviours, self-absorbed, communication disturbance, anxiety and social relating disturbance. The TBPS reflects the overall severity of a child's behaviour and emotional problems and is calculated by adding all of the items together. A TBPS of 46 or more on the parent version of this measure represents a significant disturbance (Einfeld & Tonge). A sample of 70 individuals

was used to examine the sensitivity and specificity properties of this measure. A Receiver Operating Characteristics (ROC) analysis revealed that 92% of the area for the DBCL is under the curve. This means that in terms of distinguishing between a psychiatric case and a non-case this measure has good specificity and sensitivity (Einfeld & Tonge).

The DBCL has good reliability. Internal consistencies (as measured by Cronbach's alpha) for the scales ranged between .66 to .91 for a sample of 1093 children and adolescents with a developmental delay (Einfeld & Tonge, 2002). Test-retest reliability in a sample of parents, residential workers and nurses over a two-week period was .83. The DBCL also has good convergent validity, correlating highly with other measures of behavioural and emotional disturbance. For example, a correlation of .86 was found between the DBCL total score and the Maladaptive Behaviour Section of the American Association of Mental Deficiency Adaptive Behaviour Scales Schools Edition (Einfeld & Tonge). Similarly, a correlation of .72 was found between the DBCL total score and the Problem Behaviour section of the Scales of Independent Behaviour. Additionally, the DBCL correlates highly (.86) with clinicians ratings of childhood disturbance (Clarke, Tonge, Einfeld, & Mackinnon, 2003).

6.2.2.2 Parent measures.

Family Background Questionnaire

Parents completed a demographic questionnaire adapted from the Western Australian Child Health Survey (Zubrick et al., 1995). Questionnaires included information regarding their child's age, gender, ethnic origin, school, educational support needs, current service provision and type of disability. Further information was obtained regarding the parent's marital status, family psychological history, education level, employment and income level. Items asking for

the contact details of two relatives or friends were also included in the questionnaire to ensure family contact details were maintained for the length of the study.

Working Alliance Inventory (WAI) (Horvath & Greenberg, 1989)

This 36-item inventory is designed to examine the strength of the working alliance between a client and a clinician with 12 items relating to each of the three components; tasks, bonds and goals. Participants rate their response on a 7-point scale from "*not at all true*" to "*very true*". Examining test-retest reliability for the total client scale and the sub-scale scores across a 3 week period revealed scores ranging between .66 - .80 (Horvath & Greenberg, 1994). Internal consistency (as measured by Cronbach's alpha) has been found to be good for both the client (.93) and therapist (.87) version of the measure (Horvath & Greenberg, 1989). Cronbach's alpha coefficients of .91, .90 and .88 have also been found for the goals, tasks and bonds subscales using a sample of counsellors and clients at a university counselling centre (Kokotovic & Tracey, 1990). In the current study, a Cronbach alpha coefficient of .80 was found for the working alliance total score. Cronbach's alpha coefficients of .23, .49, and .78 were found for the task, goal and bond sub-scales respectively, using the current sample of parents with a child with a disability.

Although both a client and a therapist version are available, the client version was used in this study. Total working alliance scores were calculated by summing across the individual items. Subscale totals were calculated by summing the 12 items on each subscale. Several items within each subscale required reverse scoring prior to final calculations. Total working alliance scores range between 36 and 252 with higher scores revealing a stronger alliance between the client and the group leader. Scores on the subscales range between 12 and 84 with higher scores revealing a stronger alliance. The term "therapist" was modified to "group

leader" as it more accurately reflected the current situation and appeared more user-friendly for this population. The client rated working alliance total scores and subscale scores were used in this study.

Evidence for the concurrent, predictive, and factorial validity of this measure has also been found (Horvath & Greenberg, 1989). Correlations have been observed between the three subscale scores and attractiveness, expertness, trustworthiness, and clinicians' empathy. Client reported outcomes of satisfaction (.50) and change (.33) also significantly correlate with scores on the WAI composite score (Fischer & Corcoran, 1994; Horvath & Greenberg, 1989). Confirmatory factor analysis indicated that the three subscales were unique and measured separate components of the alliance (Tracey & Kokotovic, 1989). The results also supported one higher-order general alliance factor.

Depression Anxiety Stress Scales (DASS) (Lovibond & Lovibond, 2002)

This self-report scale was designed to measure the severity of the core symptoms of depression, anxiety and stress over the past week (Lovibond & Lovibond, 2002). The measure consists of 42 items with 14 items being assigned to each of the three emotional states. Items relating to hopelessness, dysphoria, lack of interest, anhedonia, inertia, self-deprecation and worthlessness are included in the depression subscale. The anxiety subscale primarily examines heightened arousal, situational anxiety, muscular effects and the perceptions of anxious affect. Symptoms such as impatience, irritability, agitation, difficulty relaxing, nervous arousal, and chronic non-specific arousal are measured by the stress scale (Lovibond & Lovibond).

Participants rate their responses on a 4-point scale with 0 representing "*did not apply to me at all*", 1 for "*applied to me to some degree, or some of the time*", 2 for "*applied to me a considerable degree, or a good part of the tim*e", and 3 for "*applied to me very much, or most of the time*". Subscale scores are obtained by summing across the 14 items on each subscale (Lovibond & Lovibond, 2002). Several severity ratings have been developed based on a sample of 1044 males and 1870 females ranging in age between 17 and 69 years: Normal depression (0-9), mild (10-13), moderate (14-20), severe (21-27), and extremely severe (28+); normal anxiety (0-7), mild (8-9), moderate (10-14), severe (15-19) and extremely severe (20+); normal stress (0-14), mild (15-18), moderate (19-25), severe (26-33) and extremely severe (34+) (Lovibond & Lovibond, 2002).

This scale has been shown to have sound psychometric properties. Good internal consistency (as measured by Cronbach's alpha) has been found for the depression (.95), anxiety (.90) and stress (.93) subscales for a large community sample (Crawford & Henry, 2003). Similarly, Antony, Bieling, Cox, Enns, and Swinson (1998) found Cronbach's alphas of .97, .92, and .95 for the depression, anxiety and stress subscales using a sample of non-clinical and clinical volunteers. Test-retest reliability in a sample of clients receiving treatment at an anxiety disorder clinic over a two-week period revealed a reliability coefficient between .71 and .81 for the three subscales (Brown, Chorpita, Korotitsch, & Barlow, 1997). The convergent and discriminant validity of the DASS has been found to be adequate (Brown et al., 1997; Crawford & Henry, 2003; Lovibond & Lovibond, 2002). In particular, the DASS subscales correlate well with other measures of anxiety and depression showing correlations between .57 and .77 with the Beck Depression Inventory, between .42 and .84 with the Beck Anxiety Inventory, and between .44 and .65 with the State-Trait Anxiety Inventory (Antony et al., 1998). The DASS has also been found to distinguish among clinical and non-clinical samples.

Participants in the clinical group scored higher on all three subscales compared to participants in the non-clinical group (Antony et al., 1998). Subscale scores were used in this study.

Homework Rating Scale (HRS) (Kazantzis et al., 2004)

This 12-item self-report scale is designed to assess participants' quantity and quality of homework completion after each session (Kazantzis et al., 2004). Incorporated into this scale are items relating to client, therapist and task characteristics that are likely to influence homework compliance such as clients' perceptions of difficulty, obstacles, and pleasure. Participants rate their response on a five point scale from 0 "*none, not at all*" to 4 "*all, extremely, completely*" (Kazantzis et al., 2004). Scores range from 0 – 48, with higher scores suggesting a greater level of compliance and involvement in the completion of the homework.

This measure provides a comprehensive description of clients' perceptions and experiences of homework. Good internal consistency (as measured by Cronbach's alpha) has been found for the measure (.87) using a sample of patients from a public health centre specialising in cognitive therapy (Kazantzis et al., 2008). A total homework score for each session was used for the purpose of this study. Cronbach's alphas of .63, .72, .74, and .74 were found for Session 2, 3, 4 and 5 respectively using the total homework scores with this population of families with a child with a disability attending group parent training.

Client Satisfaction Questionnaire (CSQ)

This 16-item measure is adapted from the Therapy Attitude Inventory which was designed to examine the level of parental satisfaction with parent management training (Eyberg, 1993). Participants rate their level of satisfaction with the quality of service and how well the program met both their own and their child's needs. Parents rate their responses on a seven

point scale from "*very dissatisfied, no definitely not, poor, no needs have been met*" to "*very satisfied, yes definitely, excellent, almost all needs have been met*". Cronbach's alpha for the original measure was found to be .88 for mothers completing a 14-session parent-child interaction therapy program (Eyberg, 1993). In this study, the CSQ demonstrated excellent internal consistency (Cronbach's alpha = .93). Client improvement and ratings of likeability have been shown to correlate with CSQ ratings (Eyberg, 1993). The CSQ ranges between 13 and 91 with lower scores representing less satisfaction with services. Given that many parents in the current study failed to provide a response to Item 8 ("*Do you think your relationship with your partner has been improved by the program?*"), it was deleted from any further analysis. It is assumed that this question was not answered for several reasons 1) some parents did not have a partner and 2) most parents (72.4%) participated solely in the program and therefore felt that this question was not applicable to them. Therefore, the total client satisfaction score ranged from 12 – 84. Cronbach's alpha for this revised measure was found to be .92. Total scores were used in this study and if two parents with the same child participated in the SSTP program, then only the primary caregivers' response was used.

6.2.3 Group Stepping Stones – Triple P

The group SSTP program encompasses several theoretical and conceptual models including social learning models and social information processing models (Sanders, Mazzucchelli et al., 2004b). The SSTP-G program involves five 2 ½ hour sessions followed by three telephone follow ups and then a final review session. Table 3 provides a description of the program content.

Table 3

Content of the Group Stepping Stones Triple – P Program

Session Number	Content
1	Positive parenting
2	Promoting children's development
3	Teaching new skills and behaviours and managing misbehaviour
4	Clear calm instructions and strategies to back them up
5	Planning ahead
6	Parenting routines - Parent telephone follow-up 1
7	Parenting routines - Parent telephone follow-up 2
8	Parenting routines - Parent telephone follow-up 3
9	Program review and close

Incorporated into the program are several core principles, including ensuring a safe, interesting environment, creating a positive learning environment, using assertive discipline, having realistic expectations, taking care of yourself as a parent, adapting to having a child with a disability and being part of the community (Sanders, Mazzucchelli et al., 2004b). The primary aims of the program are to increase parents' problem solving skills, coping skills, and supportive networks while also teaching parents more effective discipline strategies for problem behaviour. Keeping track of behaviour, teaching children new skills, planning ahead for high-risk times, and generalisation to new situations are also an integral part of the program (Sanders, Mazzucchelli et al., 2004b). Parents are encouraged to set the agenda for the three 20 minute telephone follow ups with the therapist aiming to guide the parent to problem solve and manage the use of the behavioural techniques in the home environment.

The review session focuses on phasing out the program, maintenance of change, and guidelines for managing future high risk times (Sanders, Mazzucchelli, & Studman, 2004a).

6.2.3.1 Program adherence and integrity.

To maintain the integrity of the intervention, all facilitators received training in the Stepping Stones Triple P Program; psychologists followed the facilitator's manual for group Stepping Stones Triple P (Sanders et al., 2005); and content checklists were used after each group session and telephone follow-up to record the number of activities completed and any modifications that were made (see Appendix A). All group sessions were video-taped, with some of the sessions being examined in individual and peer supervision. In addition, detailed attendance records were kept by all facilitators (see Appendix B).

6.2.4 Procedure

Ethics approval was obtained from the Curtin University Human Research Ethics Committee and DSC. An information pack outlining the aims of the study, recruitment procedures, video protocols and the additional evaluation instruments was given to each psychologist (see Appendix C). All psychologists agreed to participate in the research. Nine DSC psychologists and two private psychologists were trained to deliver the program over a period of nine weeks. Most of the groups were conducted during school terms in 2005 and 2006 except for two which were conducted during the 2005 Christmas school holidays. Psychologists received between 3 and 5 days training prior to the commencement of the groups. A registered clinical psychologist facilitated the Stepping Stones training, which included role-playing, the demonstration of activities, information, and discussion.

Parents attending the groups were encouraged to participate in sessions through discussion, role-plays, and sharing homework exercises. Parents attended the sessions without their children. Therefore, the therapist had no direct involvement with any children throughout the intervention. Stepping Stones Triple P workbooks were provided for every family in which all activities and homework exercises were set out (Sanders, Mazzucchelli et al., 2004a). Homework was assigned at the end of every session and reviewed at the beginning of the following session. Homework review time involved a group discussion between parents and the psychologist about any successful tips or problems that had been encountered during the previous week after parents had tried implementing particular parenting strategies at home. The psychologist helped parents problem solve any difficulties and offered encouragement and praise for any success.

Participants were recruited by sending out pamphlets outlining the Stepping Stones Program to DSC Local Area Coordinators, psychology managers in each school district, education support centres and units, respite centres and family community centres (see Appendix D). All families on the waitlist at both the Northern and Southern regions of DSC were sent an expression of interest flyer with set dates before the start of every group in that region. In order to recruit additional families, brief articles outlining the Stepping Stones program and eligibility criteria were released in local community papers, parenting papers and the DSC Local Area Coordinator newsletter (see Appendix E). Parents were asked to phone the research coordinator directly or send an expression of interest flyer which was attached to the Stepping Stones flyer directly into DSC. A total of 820 expression of interest flyers were sent out to families on the wait list and to local area coordinators to recruit appropriate families. Ninety-two parents took up the opportunity to attend a Stepping Stones group through this process.

Eight parents were also recruited by informing other key disability agencies of SSTP groups. These agencies included Activ Foundation, Identity WA, Cerebral Palsy Association, Kalparrin Centre, Autism Association of WA and Carers WA. Several packages designed for parents were given to each agency worker to distribute to eligible families at their monthly sibling network meeting. An email was also sent to each agency with the expression of interest flyer attached. Approximately 150 expressions of interest flyers were also sent to school personnel, community medical centres, private psychologists and other local agencies such as respite, specialist services and the Department of Community Development. Several families were also recruited through a community radio advertisement discussing the Stepping Stones Program, which was aired for a week on the university radio station.
Six parents identified through this recruitment process did not meet the specified criteria to be included in the study. All of these children did not meet the criteria for autism or intellectual disability.

Interested parents were contacted by phone to find out additional referral information and to determine their suitability for a group. The research coordinator and all DSC psychologists used a standard screening form to determine a parent's eligibility (see Appendix F). Families were asked questions about their child's age, disability, behavioural difficulties, adaptive behaviour skills, current service involvement and any additional family stressors such as parental mental health and/or financial difficulties. Where eligibility was unclear, families were referred to the psychology manager in each region to follow up on their eligibility status. Families not registered with DSC were asked to send any reports outlining their child's intellectual functioning directly to the research coordinator. If these reports indicated that the family did not meet the eligibility criteria for services then they were given alternative therapy options such as Triple P or the university psychology clinic phone numbers.

Eligible parents were alerted on the phone about the current research project and were informed they would receive additional information in the mail and at the first group session. This telephone call acted as a screening device to ensure that participants were not placed into groups that were unsuitable for their needs. Participants were deemed inappropriate for groups if they revealed severe family adversity and stress that might interfere with their ability to attend and benefit from therapy, or if parents displayed intellectual difficulties that might have prevented their progress in a group format. In these cases, parents were referred for individual psychological services at DSC.

Six of the Stepping Stones groups were held at DSC offices, six in community centres/university settings and three in country regions. Once parents had been screened, a package including a letter, map, information sheet and all pre-test questionnaires were sent to families to complete prior to the first session (see Appendix G). Families were advised to bring the completed questionnaires to the first group session. At the first group session the research coordinator introduced herself and explained the research aims, what would be involved for parents, confidentiality, and the benefits including the chance to win a $40 voucher of their choice. Parents were also given the opportunity to ask any questions about the research project. Consent forms were given out at the first group session for parents to sign depending on whether they agreed to participate or not (see Appendix H).

Of the 15 groups that the research coordinator attended for recruitment, only one family refused to participate and this was due to their belief that their child was not old enough to consent to being indirectly involved in research. This family did not complete the questionnaires nor was their participation in the group transcribed. One participant did not agree to be video-taped but gave consent for the questionnaire part of the study, so complete

data is not available for this participant. Parents who did not return their questionnaires at the first group session were advised to bring them to the next group session. At Sessions 2, 3, 4, and 5, the research coordinator handed out the Homework Rating Scale after the psychologist had reviewed the homework from the previous week. The Working Alliance Inventory was completed by each participant during Session three. Parents completing the Working Alliance Inventory were advised that the psychologist facilitating the group would not see their individual responses. All Working Alliance Inventories were placed in sealed envelopes after being completed by parents. Small tokens of appreciation were given to parents to thank them for their time and effort. All parents were videotaped during the homework review segment of Session 2, 3, 4, and 5.

Parents were invited to attend all five sessions of the Stepping Stones Program as the information from each session built on the previous session. After the fifth group session the therapists organised with each parent convenient times for the three follow-up phone calls. After the three telephone follow-ups had been completed parents were invited to a final review session. Post-workshop questionnaires and a letter asking parents to complete the assessment booklet prior to the final session were sent out to participants during the week of the final telephone follow-up (see Appendix I). During the review session, the facilitating psychologist collected completed questionnaires and handed out the spare post-test questionnaires to participants who had forgotten to bring their completed booklet, had not filled them out, or had not received them in the post. These parents were asked to complete the questionnaires within the session. Parents who were not able to finish the questionnaires within the session were given pre-paid envelopes to send the questionnaires directly back to the research coordinator.

Parents who did not attend the review session or did not return the remainder of the questionnaires in the pre-paid envelope were contacted via phone and offered the opportunity to complete the questionnaires over the phone. If families could not be contacted by phone, a letter and the post-test questionnaire pack were sent to families to complete in a week. Reminder letters were sent to families if the questionnaires had not been returned in one week (see Appendix J). The research coordinator also rang families to ensure that they had received the package and the reminder letter.

After the completion of the SSTP intervention a letter of thanks and a brief summary report outlining the results of their questionnaires was sent to each family (see Appendix K). Summary reports were also written for each group facilitator regarding the group results of the Working Alliance Inventory and the Client Satisfaction Questionnaire (see Appendix L). The tapes from each group were transferred onto Digital Video Disk (DVD) for transcribing. The DVDs for each group session were transcribed verbatim. On completion of the project all families were sent a summary of the results of the overall study.

6.3 Data Analysis

Hypothesis 1 and 2 were tested by conducting a series of paired t-tests and calculating clinically significant change in order to examine whether any significant changes had occurred from pre-test to post-test for the parental adjustment variables and the child behaviour problem variable. The paired *t*-test requires approximately 30 participants for an 80% chance of capturing a 'medium' population effect at an alpha-level of .05 (Cohen, 1988; Howell, 2007). The current sample size of 78 was therefore sufficiently large to ensure that the paired *t*-tests had a reasonable chance of detecting non-trivial pre-post changes.

All *t*-tests were hypotheses-driven and therefore evaluated at the conventional per-test alpha-level of .05 (Howell, 2007). Keppel (1991) argues that no post-hoc tests are required when the planned comparisons are meaningful and theoretically focused. Therefore no Bonferroni corrections were required.

Jacobson and Truax's (1991) methodology of determining clinically significant change was adopted to examine the preliminary parent and child outcome data. For a score to be considered changed and clinically significant, two conditions must be met. Firstly, the change score has to be deemed reliable according to the definition outlined by Jacobson and Truax and secondly the participant's post-test score must reflect a change from an unhealthy to a healthy distribution (Wise, 2004). Reliable change (RC) scores were computed for each outcome variable (DASS Depression, Anxiety and Stress subscales, and the DBCL total behaviour problems score) by using the formula suggested below. The RC score can be interpreted as the degree to which the person changes on the outcome variable divided by the standard error of difference between the pre-test and post-test scores:

$$RC = (X_{pretest} - X_{posttest}) / \sqrt{2}\,(S_E)^2$$

When the absolute value of the RC score is greater than 1.96, it is likely that the post-test score is reflecting a *real* change – a *reliable* change - rather than the fluctuations of an imprecise measuring instrument (Wise, 2004).

In order to determine whether the reliable change is clinically significant, a cut-off score for clinically significant change must be established. Jacobson and Truax (1991) outline three ways of obtaining this cut-off score: a) The cut-off is estimated as being two standard

deviations away from the unhealthy population in the direction of functionality, b) the cut-off is estimated as being within the range of the healthy population, defined as two standard deviations of the mean, and c) the cut-off is estimated using variances from both the healthy and unhealthy population. In order to calculate cut-off *a,* norms have to be available for the unhealthy population whereas the norms for the healthy population have to be available to calculate cut-off *b.* Cut-off *c* is calculated by having access to both healthy and unhealthy norms.

Jacobson and Truax (1991) suggest that cut off *c* is the method of choice when populations overlap and norms for both healthy and unhealthy groups are available. The next preferable cut-off is *b.* Cut-off *b* was the method employed in this study for the DASS measure as only healthy population norms were available. However, no 'healthy' normative data were available for the DBCL measure leading to the use of cut-off *a.* A classification system outlined in Jacobson and Truax (1991) provides a definition of each combination of the reliable change and cut off scores. Participants are considered to be *recovered* if they obtain an RC score > 1.96 and they have a score in the healthy range using the specified cut-off score. *Improvement* is considered to have occurred when participants have an RC score > 1.96 but their score does not fall in the healthy range. Participants are deemed *unchanged* if they do not have a RC score > 1.96 and they are not within the healthy range using the specified cut-off. If the RC score is > 1.96 and their score is in the unhealthy range then they are classified as *deteriorated*. These criteria were used to determine how many participants had moved between an unhealthy and healthy population following the intervention.

Hypothesis 3 was tested with a binary logistic regression analysis. The binary dependent variable was 'dropout' (yes / no). There were four predictors: Government benefit, severity of

child's behaviour problems at pre-test, parental adjustment at pre-test and family history of mental illness.

Before testing Hypotheses 4, 5, 6, and 7, parent-reported child behaviour problems, parental depression, parental anxiety and parental stress were transformed into pre-post RC scores according to the procedures outlined above. RC scores were used because (1) they simplify the regression model by obviating the need to control for pre-test scores, and (2) they can be dichotomised to create a reliable change indicator (yes/no) that discriminates between those participants whose pre-post change is due to error measurement and those participants whose pre-post change is real.

Hypotheses 4, 5, 6, and 7 were tested by conducting a series of four 2-step logistic regressions. In each analysis, the outcome's RC indicator served as the binary dependent variable. The same nine predictors were used in each analysis: Therapeutic alliance (three measures), client satisfaction, attendance and homework compliance (four measures). Predictors were entered in a hierarchical order based on knowledge from previous research. The working alliance predictors were entered first as they were most likely to explain the largest amount of the variance (Horvath & Symonds, 1991; Martin et al., 2000; Shirk & Karver, 2003). As each of the four regressions was hypothesis-driven, statistical significance was evaluated at the conventional per-test alpha-level of .05 (Howell, 2007).

In terms of statistical power, at an alpha-level of .05, a nine predictor binary logistic regression model requires approximately 55-114 participants for an 80% chance of capturing a 'medium' to 'large' association between the DV and each of the predictors (Erdfelder, Faul, & Buchner, 1996). The current sample size of 63 was therefore sufficiently large to ensure

that the binary logistic regressions had a reasonable chance of detecting DV / predictor associations somewhere within the large range.

Hypothesis 8 was tested with a standard multiple regression analysis. The dependent variable was parent satisfaction, and the eight predictor variables were therapeutic alliance (three measures), attendance and homework compliance (four measures). All predictors were entered simultaneously. At an alpha-level of .05, an eight predictor standard regression model requires approximately 55 participants for an 80% chance of capturing a large association between the DV and the predictors (Erdfelder et al., 1996). The current sample size of 63 was therefore sufficiently large to ensure that the standard regression had a reasonable chance of detecting DV / predictor associations somewhere within the large range.

6.4 Results

This section includes an examination of attrition rates and a 'dropout' analysis. Discussions of the data screening procedures and missing values analysis are then provided, followed by the results of the hypothesis testing procedures. Eight hypotheses are tested – each one making a prediction about the impact of therapy process (homework completion, attendance, and working alliance) on treatment outcomes (client satisfaction, parent reported child behaviour problems, and parental depression, anxiety and stress) for families with a child with a disability attending group-based parent training. Assumptions testing and sample size estimates are provided for each statistical test.

6.4.1 Attendance and Attrition Rates

Overall parents attended an average of six sessions (*range* = 1 – 9) which included a combination of group sessions and telephone follow-ups. The percentages of parents attending the nine sessions are reported in Table 4.

Table 4

The Percentage of Parents who Attended each Session and Telephone Follow-up

Session / Telephone Follow-up	**Percentage of Parents Attending (Number)**
Group Session 1	93.7% (74)
Group Session 2	81% (64)
Group Session 3	79.7% (63)
Group Session 4	73.4% (58)
Group Session 5	70.9% (56)
Telephone Follow-up 1	62% (49)
Telephone Follow-up 2	55.7% (44)
Telephone Follow-up 3	40.5% (32)
Review Session	69.6% (48)

Attrition rates were examined for the entire sample. Where two parents from one family attended the group sessions, only the primary care-giver was included in the analysis. Results showed that of the 79 parents who met criteria at pre-test, 67 (84.8%) completed post-test assessment. The attrition rate at post-test was 15.19% (n = 12). Examining the attendance rates of parents who dropped out revealed that the modal number of sessions that were

attended by these parents was one. Of the 12 participants that dropped out, four participants only attended one session. See Figure 3.

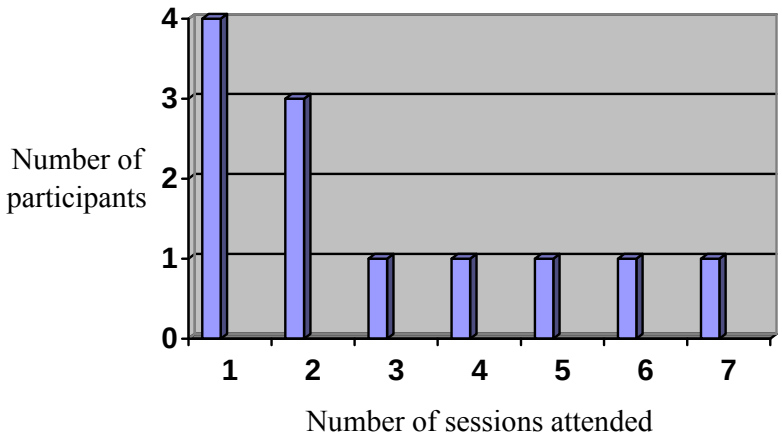

Figure 3. Most common number of sessions / telephone follow-ups attended by parents who dropped out.

Parents who dropped out before post-test were compared to those who remained and completed post-test assessments on pre-test levels of parent and child outcomes, and a range of demographic variables including, age, sex, health status, their relationship to their child, marital status, household status, family history of mental illness, level of assistance received from health professionals, whether in receipt of government pension or benefit, and father's paid employment. These analyses showed no significant differences between the two groups of parents (See Table 5 and 6).

Table 5

T-test Results for Completers and Dropouts

Measure	*N*	Mean *(SD)*	Range	Group Difference
Pre DBCL - Total Behaviour Problems				
Completers	67	55.22 (26.39)	3-110	(t (76) = -.122, p = .904)
Dropouts	11	56.27 (27.46)	13-90	
Pre DASS – Depression				
Completers	67	5.07 (6.33)	0-24	(t (76) = -.971, p = .335)
Dropouts	11	7.45 (12.89)	0-42	
Pre DASS – Anxiety				
Completers	67	3.29 (4.3)	0-22	(t (76) = -.249, p = .804)
Dropouts	11	3.73 (9.82)	0-33	
Pre DASS – Stress				
Completers	67	8.82 (7.3)	0-27	(t (76) = -.270, p = .788)
Dropouts	11	9.54 (12.7)	0-40	

Table 6

Demographic Variables for Completers and Dropouts

Group	Completers	Dropouts	Group Difference
	(*n* = 79)	(*n* = 12)	
Age of child			Fishers Exact Significance = .485
Below school age	23 (34.3%)	2 (20%)	
School age and above	44 (65.7%)	8 (80%)	
Gender of the child			Fishers Exact Significance = .328
Males	45 (67.2%)	10 (83.3%)	
Females	22 (32.8%)	2 (16.6%)	
Additional Health Problem in child			Fishers Exact Significance = 1.0
Yes	18 (28.1%)	2 (25%)	
No	46 (71.9%)	6 (75%)	
Relationship to Child			Fishers Exact Significance = .191
Biological/Adoptive/ Step Mother	62 (92.5%)	7 (77.8%)	
Other	5 (7.5%)	2 (22.2%)	
Marital Status			Fishers Exact Significance = .475
Married	41 (62.1%)	7 (77.8%)	
Other	25 (37.9%)	2 (22.2%)	
Household Status			Fishers Exact Significance = .484
Both biological or adoptive parents present	42 (63.6%)	7 (77.8%)	
Other	24 (36.4%)	2 (22.2%)	
Family History of Mental Illness			Fishers Exact Significance = .231
No history	23 (39.6%)	4 (66.7%)	
Yes history	35 (60.3%)	2 (33.3%)	
Received help from health professionals in last 6 months			Fishers Exact Significance = 1.0
Received help	33 (50%)	4 (44.4%)	
Did not receive help	33 (50%)	5 (55.6%)	
Receive any government benefit			Fishers Exact Significance = .617
No	9 (14.9%)	2 (22.2%)	
Yes	55 (85.9%)	7 (77.8%)	
Father's paid employment			Fishers Exact Significance = .577
Yes	40 (83.3%)	7 (100%)	
No	8 (16.7%)	0 (0%)	

Note. Numbers do not equal *N* due to missing or incomplete data.

6.4.2 Data Screening

SPSS for windows (Version 15) (SPSS Inc, 2007) was used to screen the data for accuracy of data entry, missing data, and outliers. The assumptions underlying the individual analyses (e.g. normality, linearity, homoscedasticity, multicollinearity and singularity) were tested and are reported with the analyses. Means, standard deviations, minimum values, and maximum values were checked for implausible values. No data entry errors were found.

SPSS Missing Value Analysis (MVA) was used to examine the extent of missing data within all cases and variables. Forty-five cases were missing more than 5% of items across all the scales. Acock (2005) reports that it is not uncommon for family research to have 50% of data points missing. Schafer and Graham (2002) differentiate missing values into several distinct categories including unit non-response and item non-response. Unit non-response occurs when a person does not complete or participate in a complete data collection period while item non-response refers to a case where a participant fails to answer certain items from a questionnaire. Schafer and Graham also discuss different kinds of missing data including wave non-response. This occurs when information is collected longitudinally and "participants are present for some waves of data collection and missing for others" (p. 150).

The extensive rate of missing values in this study can be explained mostly by wave non-response. Parents were required to fill out the HRS during the homework review segment of Sessions 2, 3, 4 and 5 and the WAI at the end of Session three. Parents who did not attend either of these sessions were unable to complete this questionnaire at a later time. Therefore, parents who missed several sessions throughout the program had incomplete data sets, despite having completed pre-test and post-test assessments.

Although many authors make a clear distinction regarding what procedures are appropriate based on the randomness of the missing values, no clear guidelines or tests are provided for investigating the assumption of randomness (Allison, 2002; Manca & Palmer, 2005; Pigott, 2001). Schafer and Graham (2002) argue that even if missing data deviate from the assumption of randomness, they are unlikely to have a serious impact on the outcomes. Therefore the assumption of 'missing completely at random' or 'missing at random' was assumed in these analyses. In any case, an examination of the cases with missing values revealed no systematic patterns of missingness across or between variables suggesting that missing data were randomly distributed across the data set.

Examining missing values categorized as item non-response revealed only a small number of missing data points (*range* = 1-11). Given that only a small percentage of data points were missing, mean substitution was used to replace these values. The overall group mean for each item was substituted for the missing values. Tabachnick and Fidell (2001) report that when the number of missing items is small and random most methods of replacing missing values generate similar findings. Mean substitution is also a conservative method which acts as an additional advantage (Tabachnick & Fidell, 2001).

A more complex strategy was adopted to deal with the unit non-response. Expectation maximization (EM) was the method employed to deal with the difficulty of unit non-response. The missing value analysis in SPSS Version 15 was used to implement the EM algorithm, which is a general method of finding the maximum-likelihood estimate of the parameters of an underlying distribution from a given data set when the data have missing values. The EM algorithm consists of a two step process that is repeated multiple times.

1) **E-step**: For variables with missing values, replace the missing values by means and covariances and then use all the variables to develop regression models for predicting the variables with missing values.
2) **M**-step: Replace the missing values with the predicted values and calculate new means and covariances. Return to Step one.

Repeat Steps one and two until missing value estimates between interations converge and no significant changes are observed (Allison, 2002; Pigott, 2001; Tabachnick & Fidell, 2001). This strategy is advantageous compared to other missing data strategies in that it avoids many of the common problems found with single imputation methods such as biased variances (Allison, 2002; Croy & Novins, 2005). Tabachnick and Fidell (2001) also argue that the EM procedure provides more realistic matrices and offers a better fit with the data.

All continuous outcome measures were screened for univariate outliers. An examination of *z*-scores for each case revealed four scores (two cases) that exceeded the criteria of 3.29 ($p < .001$, two tailed test) (Tabachnick & Fidell, 2001). These four scores were checked for accuracy against the original questionnaires; however no corrections were required. The *t*-tests of Hypotheses 1 and 2 were conducted with and without the univariate outliers producing different results, which suggest that the outliers were having an influential effect on the outcomes. Therefore all the outliers were removed from the *t*-test analyses.

Mahalanobis and Cook's Distance scores were computed for each case in order to screen for multivariate outliers among the IVs that were used in the logistic and standard regression analyses (Hypotheses 2 to 8). Two Mahalanobis Distance scores were found to exceed the χ^2 criterion of 34.528 identifying the corresponding cases as multivariate outliers. However, the

Cook's Distance scores, did not exceed 1 for any case (*range* 0 - .29075) indicating that no cases, be they univariate or multivariate outliers, were distorting the regression solution (Tabachnick & Fidell, 2001). All cases could therefore remain in the regression analyses.

6.4.3 Preliminary Hypotheses 1 and 2: Pre – Post Changes in Parent / Child Outcomes

H1: Parents will report lower levels of child behaviour problems at post-test compared to pre-test.

H2: Parents will report lower levels of depression, anxiety and stress at post-test compared to pre-test.

6.4.3.1 Assumption testing.

The related samples *t*-test requires the pre-post difference scores to be normally distributed. Pre-post difference scores were computed for each of the four dependent variables namely child behaviour problems, parental depression, anxiety and stress. No distribution significantly deviated from normality.

6.4.3.2 Results.

The means, standard deviations, and *t*-test results for each sub-scale are reported in Table 7. The table shows that the pre-test scores on the DASS sub-scales were all within the normal range. However, the pre-test scores on the Disruptive/antisocial, Self-absorbed, Communication disturbance, Anxiety and Total behaviour problems sub-scales of the DBCL were all above the clinical cut-off. The pre-test score on the Social relating sub-scale of the

DBCL was below the clinical cut-off. The t-test results show a significant pre-post difference for all sub-scales with the exception of the stress sub-scale on the DASS.

Based on the criteria developed by Cohen (1988) the effect sizes for sub-scales of the DBCL all fell within the medium to large range. The effect sizes for the sub-scales of the DASS fell within the small to medium range. See Table 7.

Table 7

Pre-post Means, Standard Deviations, T-Test Results, and Effect Size Estimates for Parent Reported Child Behaviour Problems and Parental Adjustment Scores

Measure Subscale	Pre-test Mean (*SD*)	Post-test Mean (*SD*)	Group Difference	Effect Size
Developmental Behaviour Checklist (DBCL)				
Disruptive / Anti-social	18.53 (10.22)	15.82 (9.27)**	(t (64) = 3.43, p = .001)	0.157
Self Absorbed	18.45 (9.85)	15.77 (8.56)***	(t (64) = 4.11, p <.001)	0.194
Communication Disturbance	7.12 (5.26)	6.11 (5.26)*	(t (64) = 2.58, p = .012)	0.08
Anxiety	6.05 (3.59)	5.26 (3.37)*	(t (64) = 2.52, p = .014)	0.091
Social Relating	4.94 (3.83)	4.18 (3.51)*	(t (64) = 2.23, p = .029)	0.061
Total Behaviour Problems	54.93 (26.146)	47.41 (22.47)***	(t (75) = 3.77, p <.001)	0.152
Depression Anxiety Stress Scale				
Depression	4.94 (7.01)	3.32 (4.73)*	(t (75) = 2.32, p = .023)	0.038
Anxiety	3.08 (4.93)	1.86 (3.06)*	(t (75) = 2.22, p = .030)	0.046
Stress	8.70 (8.07)	7.54 (6.08)	(t (75) = 1.46, p = .150)	0.021
Total	16.25 (14.39)	12.91 (13.56)*	(t (63) = 2.57, p = .013)	0.052

Note. * p<.05. ** p <.01. *** p <.001.

Although the results of the *t*-tests reveal a pattern of pre-post improvement, determining whether each participant's scores represent *clinically* significant changes provides additional information about the relevance and importance of that change for each individual.

6.4.3.3 Clinically significant change.

Reliable and clinically significant change was calculated for the Depression, Anxiety and Stress subscales of the DASS and also for the DBCL total behaviour problems score. Cut-off *b* was adopted for the DASS subscales as normative data were only available for a healthy population. The cut-off for the Depression, Anxiety and Stress subscales were 20.28, 14.52 and 25.93 respectively. Cut-off *a* was adopted for the DBCL as no healthy normative data were available. The two standard deviation cut-off score was 2.642 while the one standard deviation cut-off was 29.006. The cut-off of 29.006 was considered to be appropriate given that this score is well below the DBCL clinical cut-off.

The results showed that over 96% of parents moved below the clinical cut-off or remained in the healthy range at post-test in terms of depression (n = 76/79), anxiety (n = 77/78) and stress (n = 76/78). A small proportion of parents 3.4% (n = 3/79) deteriorated at post-test. One parent's depression scores deteriorated while one parent experienced deterioration in both depression and stress and the third parent's results showed deterioration in anxiety and stress.

DBCL results revealed that 25.6% (n = 20/78) moved below the clinical cut-off or remained in the healthy range. Approximately 24% (n = 19/78) of parents reported improvements in their child's behaviour problems. In comparison, approximately 42% of parents (n = 33/78) reported no change and 7.7% (n = 6/78) of parents reported deterioration in their child's behaviour.

6.4.4 Primary Hypotheses 3 to 7: Moderators and Mediators of Parent / Child Outcomes

H3: Socio-economic status, severity of child's behaviour problems, poor parental adjustment and family history of mental illness will predict premature therapy termination.

H4: Therapeutic alliance, attendance, client satisfaction, and homework compliance will predict reliable pre-post change in parent-reported child behaviour problems.

H5: Therapeutic alliance, attendance, client satisfaction, and homework compliance will predict reliable pre-post change in parental depression.

H6: Therapeutic alliance, attendance, client satisfaction, and homework compliance will predict reliable pre-post change in parental anxiety.

H7: Therapeutic alliance, attendance, client satisfaction, and homework compliance will predict reliable pre-post change in parental stress.

The means and standard deviations for each predictor variables are provided in Table 8.

Table 8

Means, Standard Deviations, and Range Scores for each Predictor Variable (N = 79)

Predictor	Mean (SD)	Range
Total Attendance Score	6.18 (2.5)	1-9
Working Alliance Task Sub-scale	48.8 (4.82)	35-60
Working Alliance Bond Sub-scale	58.41 (8.94)	36-81
Working Alliance Goal Sub-scale	44.75 (5.85)	29-61
Homework Rating Scale Total -2	25.89 (4.69)	13-36
Homework Rating Scale Total – 3	27.0 (5.09)	10-36
Homework Rating Scale Total – 4	26.1 (5.77)	9-37
Homework Rating Scale Total – 5	27.22 (5.12)	14-39
Total Client Satisfaction Score	64.01 (10.71)	38-84

6.4.4.1 Assumption testing.

Logistic regression is relatively assumption free. It does not assume linearity, homoscedasticity or normally distributed error terms and can handle gross inequalities in groups sizes (Tabachnick & Fidell, 2001). No violations were recorded.

6.4.4.2 Results.

Table 9 provides a summary of the results of the logistic regression for Hypothesis 3.

Table 9

Logistical Regression Output Statistics for Early Termination (N = 63)

		Wald	*df*	*P*	χ^2	*df*	*p*	R^2
Block 1								
Government Benefit		0.156	1	0.693				
History of mental health problems		3.501	1	0.061				
Parental adjustment at pre-test		3.083	1	0.079				
Severity of child behaviour problems at pre-test		1.164	1	0.281				
	Block				9.623	4	0.047*	
	Model				9.623	4	0.047*	0.282

Note. R^2 is Nagelkerke R Square, * p <.05.

According to the Wald test, none of the four IVs was able to account for a significant proportion of the variance in the likelihood of dropping out (*Wald* [1] = .156, p = .693; *Wald* [1] = 3.501, p = .061; *Wald* [1] = 3.083, p = .079; *Wald* [1] = 1.164, p = .281). However, when combined, the four variables accounted for a significant 28.2% of the variance in the likelihood of dropping-out (Nagelkerke *R* Square = .282; x^2 (4, n = 63) = 9.623, p = .047), indicating that living on government benefits, having a family history of mental illness, reporting parental adjustment problems at pre-test and having a child with severe problem behaviour at pre-test was associated with dropout.

Table 10 provides a summary of the results of the logistic regression for Hypothesis 4.

Table 10

Logistic Regression Output Statistics for Parent Reported Child Behaviour Problems (N = 78)

		Wald	*df*	*P*	χ^2	*df*	*p*	R^2
Block 1								
Working Alliance Task Sub-scale		0.046	1	0.83				
Working Alliance Bond Sub-scale		0.778	1	0.378				
Working Alliance Goals Sub-scale		3.914	1	0.048*				
	Block				5.414	3	0.144	
	Model				5.414	3	0.144	0.096
Block 2								
Working Alliance Task Sub-scale		0.022	1	0.883				
Working Alliance Bond Sub-scale		0.011	1	0.916				
Working Alliance Goal Sub-scale		3.019	1	0.082				
Total Attendance Score		0.009	1	0.924				
Total Client Satisfaction Score		1.651	1	0.199				
Total Homework Rating Scale – 2		0.212	1	0.645				
Total Homework Rating Scale – 3		0.653	1	0.419				
Total Homework Rating Scale – 4		0.767	1	0.381				
Total Homework Rating Scale – 5		0.908	1	0.341				
	Block				3.746	6	0.711	
	Model				9.16	9	0.423	0.159

Note. R^2 is Nagelkerke R Square, * p <.05.

After controlling for the other Block 1 IVs, the Working Alliance Goal Sub-scale score was able to account for a significant 7.6% of the variance in the likelihood of belonging to the reliable change group (Nagelkerke *R* square change = .076; *Wald* [1] = 3.914, p = .048). Higher scores on the goal sub-scale of the Working Alliance Inventory predicted a greater

probability of belonging to the reliable change group. After controlling for the three Block 1 IVs, the six Block 2 IVs could *not* explain a significant proportion of the variance in the likelihood of belonging to the reliable change group for child behaviour problems – either individually (*Wald* [1] = .009, p = .924; *Wald* [1] = 1.651, p = .199; *Wald* [1] = .212, p = .645; *Wald* [1] = .653, p = .419; *Wald* [1] = .767, p = .381; *Wald* [1] = .908, p = .341) or in combination (Nagelkerke *R* square change = .063, $\chi^2_{block}[6] = 3.746$, p = .711).

Table 11 provides a summary of the results of the logistic regression for Hypothesis 5.

Table 11

Logistic Regression Output Statistics for Parent Reported Depression Levels (N = 78)

		Wald	*df*	*P*	χ^2	*df*	*p*	R^2
Block 1								
Working Alliance Task Sub-scale		0.615	1	0.433				
Working Alliance Bond Sub-scale		0.014	1	0.907				
Working Alliance Goal Sub-scale		0.146	1	0.702				
	Block				0.742	3	0.863	
	Model				0.742	3	0.863	0.019
Block 2								
Working Alliance Task Sub-scale		2.091	1	0.148				
Working Alliance Bond Sub-scale		0.042	1	0.838				
Working Alliance Goal Sub-scale		1.269	1	0.26				
Total Attendance Score		2.25	1	0.134				
Total Client Satisfaction Score		0.459	1	0.498				
Total Homework Rating Scale – 2		1.005	1	0.316				
Total Homework Rating Scale – 3		5.104	1	0.024*				
Total Homework Rating Scale – 4		2.832	1	0.092				
Total Homework Rating Scale – 5		0	1	0.984				
	Block				13.515	6	0.036*	
	Model				14.257	9	0.113	0.327

Note. R^2 is Nagelkerke R Square; *p <.05.

The three Block 1 IVs could *not* explain a significant proportion of the variance in the likelihood of parents reporting reliable change in depression – either individually (*Wald* [1] = .615, p = .433; *Wald* [1] = .014, p = .907, *Wald* [1] = .146, p = .702) or in combination (Nagelkerke *R* square = .019, χ^2_{block} [3] = .742, p = .863). The six Block 2 IVs, in combination, could explain a significant proportion of the variance in the likelihood of belonging to the reliable change group after controlling for the Block 1 IVs (Nagelkerke *R*

square change = .308, χ^2_{block} [6] = 13.515, p = .036). Homework compliance at Session 3, however, was the only significant predictor of the likelihood of belonging to the reliable change group for parental depression after controlling for the other 12 Block 1 and Block 2 variables (*Wald* [1] = 5.104, p = .024).

Table 12 provides a summary of the results of the logistic regression for Hypothesis 6.

Table 12

Logistic Regression Output Statistics for Parent Reported Anxiety Levels (N = 78)

		Wald	*df*	*P*	χ^2	*df*	*p*	R^2
Block 1								
Working Alliance Task Sub-scale		0.443	1	0.506				
Working Alliance Bond Sub-scale		0.406	1	0.524				
Working Alliance Goal Sub-scale		3.388	1	0.066				
	Block				9.303	3	0.026*	
	Model				9.303	3	0.026*	0.338
Block 2								
Working Alliance Task Sub-scale		1.392	1	0.238				
Working Alliance Bond Sub-scale		1.022	1	0.312				
Working Alliance Goal Sub-scale		0.291	1	0.59				
Total Attendance Score		1.395	1	0.238				
Total Client Satisfaction Score		0.003	1	0.958				
Homework Rating Scale – 2		0.422	1	0.516				
Homework Rating Scale – 3		0.417	1	0.518				
Homework Rating Scale – 4		1.6	1	0.206				
Homework Rating Scale – 5		0.087	1	0.768				
	Block				9.215	6	0.162	
	Model				18.518	9	0.03*	0.635

Note. R^2 is Nagelkerke R Square; *p <.05.

None of the three Block 1 variables was able to account for a significant proportion of the variance in the likelihood of belonging to the reliable change group for parental anxiety (*Wald* [1] = .443, p = .506; *Wald* [1] = .406, p = .524; *Wald* [1] = 3.388, p = .066). However, when combined, these variables accounted for a significant 33.8% of the variance in the likelihood of belonging to the reliable change group for parental anxiety (Nagelkerke *R* square = .338; χ^2_{block} [3] = 9.303, p = .026). After controlling for the three Block 1 IVs, the six Block 2 IVs did *not* explain a significant proportion of the variance in the likelihood of belonging to the reliable change group for parental anxiety - either individually (*Wald* [1] = 1.395, p = .238; *Wald* [1] = .003, p = .958; *Wald* [1] = .422, p = .516; *Wald* [1] = .417, p = .518; *Wald* [1] = 1.6, p = .206; *Wald* [1] = .087, p = .768) or in combination (Nagelkerke *R* square change = .297, χ^2_{block}[6] = 9.215, p = .162).

Table 13 provides a summary of the results of the logistic regression for Hypothesis 7.

Table 13

Logistic Regression Output Statistics for Parent Reported Stress Levels (N = 78)

		Wald	*df*	*P*	χ^2	*df*	*p*	R^2
Block 1								
Working Alliance Task Sub-scale		0.503	1	0.478				
Working Alliance Bond Sub-scale		0.002	1	0.961				
Working Alliance Goal Sub-scale		0.002	1	0.964				
	Block				0.728	3	0.867	
	Model				0.728	3	0.867	0.016
Block 2								
Working Alliance Task Sub-scale		0.659	1	0.417				
Working Alliance Bond Sub-scale		0.012	1	0.911				
Working Alliance Goal Sub-scale		0.111	1	0.739				
Total Attendance Score		0.052	1	0.82				
Total Client Satisfaction Score		0.256	1	0.613				
Homework Rating Scale – 2		0.683	1	0.408				
Homework Rating Scale – 3		0.503	1	0.478				
Homework Rating Scale – 4		0.101	1	0.751				
Homework Rating Scale – 5		0.351	1	0.553				
	Block				6.564	6	0.363	
	Model				7.292	9	0.607	0.15

Note.R^2 is Nagelkerke R Square; **p*<.05.

The three Block 1 IVs could *not* explain a significant proportion of the variance in the likelihood of belonging to the reliable change group for parental stress - either individually (*Wald* [1] = .503, *p* = .478; *Wald* [1] = .002, *p* = .961, *Wald* [1] = .002, *p* = .964) or in combination (Nagelkerke *R* square = .016, χ^2_{block} [3] = .728, *p* = .867). After controlling for the three Block 1 IVs, the six Block 2 IVs did *not* explain a significant proportion of the

variance in the likelihood of belonging to the reliable change group in parental stress, - either individually (*Wald* [1] = .052, *p* = .82; *Wald* [1] = .256, *p* = .613; *Wald* [1] = .683, *p* = .408; *Wald* [1] = .503, *p* = .478; *Wald* [1] = .101, *p* = .751; *Wald* [1] = .351, *p* = .553) or in combination (Nagelkerke *R* square change = .134, $\chi^2_{block}[6] = 6.564$, *p* = .363).

6.4.5 Hypothesis 8: Predicting Client Satisfaction

H8: Therapeutic Alliance, attendance, and homework compliance will predict total client satisfaction.

The mean client satisfaction score was 5.67 (*SD* = 1.09) (7-point scale), indicating that parents were "*satisfied*" with the Stepping Stones Program. Eighty-nine percent (*n* = 58/65) of parents reported being "*satisfied*" to "*very satisfied*" with the program (see Figure 4).

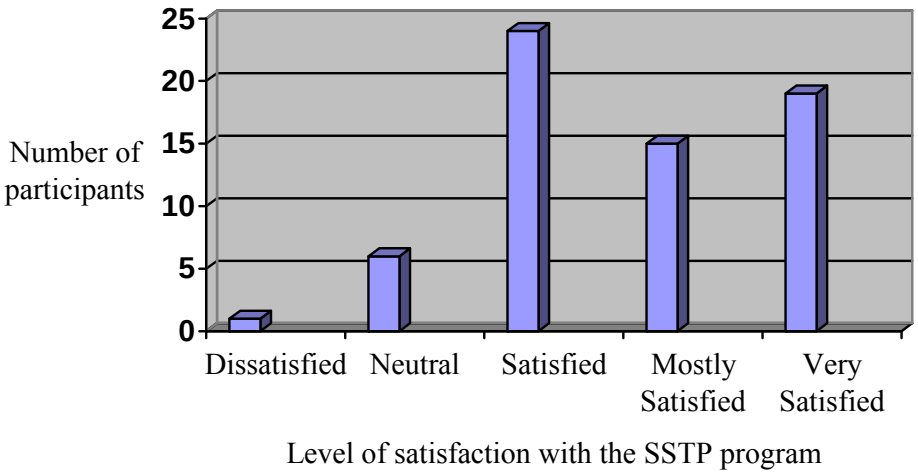

Figure 4. Overall client satisfaction with the group Stepping Stones Triple P Program.

Means and standard deviations for each client satisfaction item are provided in Table 14. Ninety-one percent (*n* = 59/65) of participants rated the quality of service that they received as *"good"* to *"excellent"*. The same number of participants reported receiving the type of help that they wanted. Sixty-three percent (*n* = 41/65) of participants reported that the program met *"most"* to *"almost all"* of their child's needs. However, 32.3% (*n* = 21/65) of participants reported that the program met *"a few"* of their child's needs. Seventy-one percent (*n* = 46/65) of participants reported that the program met *"most"* to *"almost all"* of their own needs. Eighty-nine percent (*n* = 58/65) of participants stated that the program helped *"somewhat"* to *"a great deal"* with problems that arose in the family. Eighty percent (*n* = 52/65) of participants reported being *"satisfied"* to *"very satisfied"* with the amount of help that they received from the program. Ninety-two percent (*n* = 60/65) of participants reported that the program helped *"somewhat"* to *"a great deal"* in managing child behaviour. Over 96% (*n* = 63/65) of participants reported that the program helped develop skills that could be used with other family members. Eighty-eight percent (*n* = 57/65) of participants reported that their child's behaviour was *"slightly improved"* to *"greatly improved"* and 60% (*n* = 39/65) reported being *"satisfied"* to *"very satisfied"* with their child's progress. Over 75% (*n* = 50/65) of participants reported that they would come back to Stepping Stones again, if they required additional services. The mean combined total item client satisfaction score was 64 (*range* = 12 -84), which indicates a good level of satisfaction with the Stepping Stones Program.

Table 14

Means and Standard Deviations for each Client Satisfaction Item (N = 65).

Item	*Mean*	*SD*
Quality of service	5.87	1.18
Type of help you wanted	5.57	1.14
Program met your child's needs	4.74	1.45
Program met parent's needs	5.06	1.32
Satisfied with the amount of help	5.34	1.38
Deal more effectively with child behaviour	5.77	1.06
Deal more effectively with problems in family	5.64	1.04
Overall satisfaction	5.68	1.09
If seek additional help, come back to SS	5.35	1.44
Develop skills that can be used with other family members	5.89	(.94)
Opinion on child's behaviour at this point	5.32	(1.24)
Feelings about child's progress	5.40	(1.32)
Summed Total Client Satisfaction Score	64.01	(10.71)

Note. 7-point response choice scale where 1 = poor, no needs have been met, very dissatisfied, no definitely not, made things worse and 7 = excellent, almost all needs have been met, very satisfied, yes definitely, yes it has helped a great deal.

6.4.5.1 Assumption testing.

The scatter plot of the standardized residuals against standardized studentized predicted values was examined for violations of the regression assumptions of linearity, homoscedasticity and normality. The scatter plot revealed that the cases were more or less randomly distributed about the central horizontal axis indicating that all three assumptions had been met (Tabachnick & Fidell, 2001). Tolerance levels less than .2 are presumed to indicate multicollinearity (Tabachnick & Fidell). Tolerance levels were computed for each predictor in the standard regression. These scores ranged from 0.346 to 0.570, indicating that multicollinearity was not a problem.

6.4.5.2 Results.

Table 15 provides a summary of the standard multiple regression for Hypothesis 8.

Table 15

Regression Output Statistics for Client Satisfaction (N = 78)

Predictors	*(B)*	*(ß)*	sr ²	*R* Square (R^2)	Adjusted *R* Square
				0.509*	0.453
Homework Rating Scale-2	1.127	0.494	0.106*		
Homework Rating Scale-3	0.018	0.009	0.00005		
Homework Rating Scale-4	0.24	0.129	0.006		
Homework Rating Scale-5	-0.028	-0.014	-.00006		
Working Alliance Task Sub-scale	0.35	0.158	0.014		
Working Alliance Goal Sub-scale	-0.249	-0.136	-0.007		
Working Alliance Bond Sub-scale	-0.373	-0.312	-0.037*		
Total Attendance Score	1.236	0.289	0.046*		

Note. * p <.05.

The eight predictors, in combination, predicted a significant 50.9% of the variance in client satisfaction levels (R^2 = 0.509, p < .05). Three predictors made significant contributions to this effect: Total Homework compliance at Session 2, which explained a unique 10.6% of the variance in client satisfaction levels (sr^2 = .106, p <.05); Working Alliance – bond sub-scale, which explained a unique 3.7% of the variance in client satisfaction levels (sr^2 = -0.037, p = .025); and total attendance, which explained a unique 4.6% of the variance in client satisfaction levels (sr^2 = .046, p = .013).

6.5 Discussion

The present study was designed to investigate therapy process and the impact on child and parent outcomes for families with a child with a disability attending group-based parent training. Therapy process variables included both within sessions variables (working alliance,

client satisfaction) and between session variables (homework completion, attendance). Contrary to hypotheses, homework completion did not predict parental or child treatment outcomes. The one exception to this was homework completion at session three which significantly predicted reliable change in parent's depression scores at post-test. Parents who had completed homework at session three were more likely to report reliable change in their depression scores. Consistent with hypotheses, the working alliance between parents and the group leader predicted treatment outcomes. The "goal" sub-scale of the Working Alliance Inventory predicted reliable change in parent-reported child behaviour problems at post-test. Parents who had similar goals to the therapist reported fewer child behaviour problems after the intervention. Similarly, higher scores on the Working Alliance sub-scales in combination were found to predict reliable change in parental anxiety at post-test.

There was also support for the hypothesised moderator variables, in that low socio-economic status, severity of child's behaviour problems, parental adjustment, and family history of mental health problems in combination predicted premature termination from the group treatment program. However, client satisfaction and attendance was not significantly associated with either parent or child treatment outcomes.

6.5.1 Parent and Child Outcomes

It was hypothesised that families who participated in the group-based parent training program would report lower levels of child behaviour problems and parental depression, anxiety and stress at post-test compared to pre-test. Prior to analysis, differences between completers and dropouts were examined which revealed no significant differences between the groups. However, it is interesting to note that participants who dropped out had much higher standard

deviation scores on the outcomes measures. This indicates that dropouts had greater variability in their scores which may suggest that the dropout group included both those parents who were not coping and those parents who had improved and no longer required any psychological support.

Paired *t*-tests showed significant differences between pre-test and post-test scores for all the DBCL sub-scales and for the depression and anxiety sub-scale of the DASS. No significant difference was found between pre-test and post-test scores on the stress sub-scale. One explanation for the non-significant result may be due to the low levels of stress experienced by parents at pre-test. The mean stress score for parents at pre-test fell well within the normal range which may represent a floor effect with little variability for parents to move at post-test. However, it is important to note that all DASS sub-scale scores fell within the normal range at both pre-test and post-test. Despite the normal range for depression and anxiety scores, parents still experienced a reduction in self reported depression and anxiety symptoms at post-test.

The significant results for child behaviour problems are comparable to the results of Roberts et al.'s (2004) study which found that parents who completed the Stepping Stones Program reported fewer behavioural problems in children, less child oppositional behaviour, and less child non-compliance compared to parents of control group children. However, the reductions in parental mental health variables are inconsistent with previous studies examining the Stepping Stones Program. Plant and Sanders (2007), Harrison (2006) and Myers (2007) failed to find significant findings for parental depression, anxiety or stress at post-test. The current results need to be interpreted with caution due to the lack of a control condition. It is

impossible to say that the difference between the pre-test and post-test scores reflect an intervention effect as no control condition was employed.

Attendance, client satisfaction, working alliance and homework completion were expected to predict improvements in parental depression, anxiety and stress at post-test. However, homework completion at session three was the only significant predictor of reliable change in parental depression at post-test. Parents who completed more homework at session three reported more reductions in depression at post-test. The Working Alliance Inventory sub-scales in combination significantly predicted reliable reductions in parental anxiety at post-test. However, not one of these predictors was able to account for significant proportion of the variance in parental stress at post-test.

These results are consistent with previous studies which have found a link between homework compliance, depressive symptomatology relief, and improvements in therapy (Bryant et al., 1999; Kazantzis et al., 2000; Rees et al., 2003). As parents started to engage in homework, do more pleasant events with their children, and generally start to schedule more tasks into their daily lives their depression levels lifted. Homework tasks may have acted as a way of scheduling pleasant events into their daily lives which may have also provided opportunities for achievement. Given that child problem behaviour has also been linked to parental psychological distress it is also possible that by session three, parents had implemented several new parenting strategies thus reducing child behaviour problems and in turn their own depressive symptoms.

The finding that the Working Alliance sub-scales tasks, bonds and goals in combination were associated with improvements in parental anxiety is consistent with the meta-analytic reviews

by Horvath and Symonds (1991) and Martin et al. (2000) which found a moderate relationship between alliance ratings and outcomes. It seems reasonable to suggest parent ratings of likeability and the agreement on goals and tasks between the parent and the therapist are linked to changes in anxiety symptomatology at post-test (Greenberg & Webster, 1982; Kendall, 1994).

No therapy process variable predicted changes in parental stress. The mean parental stress score at pre-test was well within the normal range which may represent a floor effect. Another possible explanation for this result is the link between parental stress and levels of childhood behaviour problems. Many studies have found that child behaviour problems account for a significant proportion of the variance in stress in parents of children with disabilities above and beyond other factors such as the child's cognitive capabilities. The results showed that 42.3% of parents did not report clinically significant change in their child's behaviour problems at post-test. It might be that child behaviour problems did not drop significantly enough to produce changes in parental stress.

In terms of child behaviour outcomes, the more parental and therapist goals were aligned as part of the working alliance, the more reliable improvements parents reported in child behaviour problems at post-test. However, no other process variable including attendance, homework completion, or client satisfaction was able to predict child behaviour problems. These results confirm previous studies which argue that the alliance between the therapist and parent is paramount to successful treatment outcomes (Miller & Prinz, 1990). Kazdin et al. (2006) found the parent-therapist alliance to be related to improvements in child's behaviour at post-test.

Similar to the current study, Dishion et al. (in press) as cited in Eddy et al. (1998) failed to find evidence that homework completion and parent attendance were associated with changes in child behaviour problems. Homework completion and attendance predicted social learning outcomes and knowledge in parents but did not have an impact on child behaviour problems. Dishion et al. as cited in Eddy et al. argued that more focus needs to be placed on examining parental thoughts and expectations in regards to parents' readiness to change and the context of the environment. The influence of these thought processes and expectations were beyond the realms of this study but nonetheless merit further investigation.

Rater bias may also be another possible explanation for the current findings. Both Reid et al. (2004) and Nye et al.'s (1995) studies found a significant relationship between program engagement variables and child behaviour outcomes. However, program engagement in these studies was rated by either the therapist or an independent rater. Therapy process or program engagement in the current study was rated by parents. It might be that parent-report measures are not sensitive enough to detect the processes involved in the intervention. Parents may be more inclined to see themselves engaging in a more positive light and would have less training and experience in correctly rating their level of engagement within therapy.

The way in which the therapy process variables were created, scored and then analysed may have also contributed to the non-significant results. The current therapy process variables were scored in isolation and analysed separately. In comparison, Nye and colleagues (1995) generated a composite score from individual therapy process variables and found a significant association with child behaviour outcomes. Nye and colleagues found that merely attending all treatment sessions was not enough to lead to changes in child behaviour problems. Therefore it might be that therapy process variables studied in isolation may not be strong

enough to create a significant association with child behaviour outcomes. This suggests that it is the combination of process variables and the combined effect that leads to treatment outcomes.

Another possible explanation for the unexpected finding that homework completion did not have an impact on treatment outcomes may be due to the nature of the assigned homework. Although SSTP facilitators assign specified homework tasks each week, parents are able to choose and adjust which parenting strategies and behaviours they focused on. This meant that some parents attempted more time consuming and intense strategies while other parents opted for the easier, more routine strategies. Hence the relationship between homework and treatment outcomes may not be a linear one due to the large variability associated with the assigned homework. This possible explanation further supports the rationale for examining homework completion against therapeutic change across time.

Contrary to the present research, Nye et al. (1999) found that satisfaction with treatment as reported by parents was positively associated with improvements in child behaviour problems and parenting skills. One explanation for the difference in results may be due to the different factors examined in the treatment satisfaction questionnaires across the studies. Nye et al. (1999) study included questions which examined the relationship with the therapist such as likeability and shared understanding of difficulties, as well as parental expectation ratings. The client satisfaction questionnaire used in the present study did not examine any aspect of the parent-therapist relationship or parental expectations of the therapy and thus may reflect a different construct.

The current results may also be due to the lack of statistical power. In order to have an 80% chance of capturing a 'medium' to 'large' association between the dependent variable and each of the predictor variables, approximately 55 – 114 participants were required (Erdfelder et al., 1996). The sample size of 63 was therefore less than ideal. Therefore, it may be possible to capture significant associations between the predictors and the dependent variable if a larger sample size was available.

6.5.2 Premature Termination

The dropout rate for this sample, at 15.19%, was lower than those of other studies of parent training interventions who have reported attrition rates of 8-48% (Assemany & McIntosh, 2002; Forehand et al., 1983). As predicted, low socio-economic status as indexed by being in receipt of government benefits, severe child behaviour problems, parental adjustment problems, and family history of mental health problems were associated with premature termination. These factors in combination reliably predicted 28.2% of dropout. Although these variables provide some insight into what factors predict dropout, there is still scope for many other variables to explain this relationship.

These results are consistent with findings from previous studies examining dropout and premature termination. Family income and maternal psychopathology were found to be salient predictors of parent training efficacy for child externalising behaviour in Reyno and McGrath's (2006) meta-analytic review. While Kazdin (1996) reported that socio-economic disadvantage, family constellation, parental stress and psychopathology, child antisocial behaviour and overall symptoms, child educational functioning, family child rearing practices and peer relationships can increase the risk of premature termination for typically developing

children referred with conduct disorder. Similarly, Kazdin and Wassell (1999) examined families of children with oppositional, aggressive and antisocial behaviour problems attending outpatient therapy and found therapeutic improvement to be predicted by less socio-economic disadvantage, lower levels of parent psychopathology and stress, and more limited child dysfunction. Comparable results have also been identified by Assemany and McIntosh (2002), Kazdin (1990), Kazdin and Mazurick (1994), and Snell-Johns et al. (2004).

These results highlight how important it is for clinicians to be aware of each individual family's history and background as risk factors for premature termination. Although this study retained more families than previous research, additional strategies are required to assist these vulnerable families to engage and persist with behavioural family interventions. Parents may require initial therapy sessions or concurrent support to assist them with their own psychopathology before they are able to focus on changing their parenting practices, or they may require more specialised and individualised interventions.

6.5.3 Client Satisfaction Outcomes

The results from this study suggest that the majority (89%) of families were "satisfied" to "very satisfied" with the program and the services that they received. Of the 79 parents of children with disabilities who participated in this study approximately one third (31%) had a child with a primary diagnosis of autism / pervasive developmental disorder as reported by parents. Thus, families with a child with autism / pervasive developmental disorder also appear to find the program useful and acceptable. This is consistent with the findings from Whittingham et al.'s (2005) study which examined the acceptability of the Stepping Stones Triple P program with parents of children diagnosed with autism spectrum disorder. Parents

in the Whittingham et al. study reported that the program and many of the parenting strategies were positive and helpful. Overall the current results suggest that the Stepping Stones Triple P program is positively received by families with a child with a disability including families with a child with autism.

No support was found for the prediction that higher client satisfaction scores would be associated with lower levels of child behaviour problems and parental mental health symptoms at post-test. Instead, client satisfaction was predicted by total attendance, Homework compliance at session two and the Bond sub-scale of the Working Alliance Inventory. Few studies have examined the impact of client satisfaction ratings on therapy outcomes with most studies using measures of social validity as an adjunct to treatment outcomes. Other studies have also failed to find a significant relationship between client satisfaction and treatment outcomes using a variety of different populations (Barrett et al., 2001; Ries et al., 1999). One explanation for this result is that ratings of client satisfaction may represent a positive bias by participants who are eager to please the group facilitators. It might also be that the perceived level of acceptability or likability of the Stepping Stones program is a separate factor, independent of treatment outcomes or behaviour change which may take more time to be manifested. Given these results, group facilitators need to be careful not to assume that satisfaction with services equates to symptom change at post-test.

6.5.4 Conclusions

In summary, this study provided encouraging information regarding the impact of therapy process on outcomes for families with a child with a disability attending group-based parent training. The parent-therapist alliance was found to be associated with reliable change in child

behaviour problems and parental anxiety at post-test. Homework completion at session three was associated with reliable change in parental depression at post-test. Demographic variables including socio-economic status, severity of child's behaviour problems, parental adjustment and family history of mental health problems predicted dropout. These results provide evidence of indicators of why some families do better than others in parent training interventions. However, these results do not provide a moment to moment account of the processes or changes that families with a child with a disability experience when participating in group-based parent training. Quantitative methods of obtaining results can only provide limited information regarding process and thus qualitative/observational methods are needed. The next section will further explore the processes of therapy for families with a child with a disability using observational methodology.

CHAPTER SEVEN

Study Two

The Impact of Parental Resistant and Non-resistant Behaviour

7.1 Introduction

This study was designed to investigate the impact of parental resistant and non-resistant verbalisations during group-based parent training on both child behaviour outcomes and parental adjustment outcomes. Marshall and Rossman (1999) state that observations in qualitative research "… can range from highly structured, detailed notation of behaviour guided by checklists to more holistic description of events and behaviour" (p. 107). The techniques employed in this study reflect a combination of different structured procedures. Observational methods provide the opportunity for spontaneous and interpersonal behaviour to be captured, particularly in a group setting. Observations provide a solid record of the sequence of events in which the researcher can examine in detail, what is said and how it is said, between the participants (Sattler, 2002).

7.1.1 Hypotheses

H1: Total non-resistant parent verbalisations will predict a reduction in parent reported child behaviour problems.

H2: Total non-resistant parent verbalisations will predict a reduction in parental depression.

H3: Total non-resistant parent verbalisations will predict a reduction in parental anxiety.

H4: Total non-resistant parent verbalisations will predict a reduction in parental stress.

7.2 Method

7.2.1 Participants

Participants were a subset (n = 36) of the larger sample of parents, living in Western Australia who had at least one child (*mean age* = 5.38) with a developmental disability and parent reported behaviour problems. These parents were selected from the larger sample that took part in the quantitative study. To be included in this part of the study parents had to have attended Sessions 2, 3, 4, and 5. This ensured that the same sample of parents was included in each regression analysis.

7.2.1.1 General characteristics of participants.

Of the parents involved in the study 86.1% (n = 31/36) were mothers. The age of the primary care-giver ranged from 28 to 59 years (M = 36 years). Approximately 69% (n = 24/35) reported being original families (either biological or adoptive parents) while 20% (n = 7/35) reported being single parent families.

The most predominant child disability categories as reported by parents included Autism/Pervasive Developmental Disorder (36.1%, n = 13/36), developmental delay (16.7%, n = 6/36), and intellectual disability (including Down syndrome) (16.7%, n = 6/36).

Note. The demographic percentages do not have consistent total numbers due to incomplete or missing data

Approximately 20% (*n* = 7/36) of parents reported more than one primary disability type. Additional child health problems were reported by 25% (*n* = 9/36) of parents. Of the 36 children involved in this part of the study 33.3% (*n* = 12/36) were female and 66.7% were male.

7.2.1.2 Characteristics of families with a child with a disability.

Over half (68.6%, *n* = 24/35) of the participating parents were married, 17.2% (*n* = 6/35) were never married or living in a defacto relationship and 11.4% (*n* = 4/35) were separated. Over one third of the sample lived with an average of four people in the home. Approximately 40% (*n* = 14/36) of the primary care-givers rated their education level as Year 10-11, 25% (*n* = 9/36) reported their education as TAFE/college, 13.9% (*n* = 5/36) reported their education as university degree and 13.9% (*n* = 5/36) as completing Year 12. Twenty-five percent of the primary care-givers were in paid employment. Of those in paid employment, 88.9% (*n* = 8/9) worked part-time and 11.1% (*n* = 1/9) worked full-time.

The majority of families (88.2%, *n* = 30/34) reported receiving some form of government assistance. Primary care-givers reported that 70.4% (*n* = 19/27) of their partners were in paid employment, 14.8% (*n* = 4/27) were self-employed and 14.8% (*n* = 4/27) were unemployed. The most commonly reported occupation categories for fathers included manager/administrator (31.6%, *n* = 6/19), tradesperson (15.8%, *n* = 3/19) and salesperson/personal service worker (15.8%, *n* = 3/19). Of the fathers in paid employment, 100% worked full time hours.

Approximately 40% (*n* = 16/36) of the families reported that they had not received any help for themselves or their partner from a mental health professional in the previous six months, 22.2% (*n* = 8/36) of parents reported receiving help from more than one professional, 11.1% (*n* = 4/36) reported receiving help from a counsellor, 11.1% (*n* = 4/36) reported receiving help from a social worker and 5.6% (*n* = 2/36) reported receiving help from another professional. Over half (66.7%, *n* = 20/30) of parents reported that they had a history of mental illness while 33.3% (*n* = 10/30) reported no history of mental illness. In terms of services accessed for the child, approximately 44% (*n* = 16/36) of parents reported that no other service other than DSC was involved in the care of their child, 38.9% (*n* = 14/36) reported one other service being involved and 8.3% (*n* = 3/36) reported two other services being involved.

7.2.2 Measures

7.2.2.1 The Therapy Process Code: A multidimensional system for observing therapist and client interactions.

The Therapy Process Code (Chamberlain et al., 1986) is designed to be used throughout therapy sessions and measures both client and therapist verbalisations. Client and therapist verbalisations can be grouped into a number of different categories. Client verbalisations were grouped into nine distinct groups relating to resistant behaviours; challenge/disagree, hopeless/blaming, defend self or others, own agenda/sidetrack, answer for someone else, no answer/no response, disqualify previous statement, verbal attacks on other present family members and non-resistant. All non-resistant behaviours such as answers to therapists' questions, head nods and shakes are coded together. Therapist verbalisations can be coded into eight different categories including support/empathise, teach, question/information seek,

structure, disagree/challenge/confront, interpret/reframe, facilitate, and talk. For a detailed description of each client and therapist category see Appendix C. Although a number of sub-categories exist within several of the therapist and client codes only the prominent categories mentioned above were used in this study. Because of low frequencies of resistant codes (*range* = 0 – 18), these were collapsed into one category.

Although no psychometric properties are available for this Therapy Process Code, earlier versions of this code, known as the Client Non-Compliance Code (Kavanagh, Gabrielson, & Chamberlain, 1982) and the Therapist Behaviour Code (Forgatch & Chamberlain, 1982) have shown promising results (Patterson & Forgatch, 1985). The Client Non-Compliance Code includes five categories, interrupt, negative attitude, confront, own agenda, and not tracking. In comparison, the Therapist Behaviour Code includes seven categories, namely support, teach, question, confront, reframe, talk and facilitate (Patterson & Forgatch). Inter-observer reliability for the Client Non-Compliance Code which incorporates many of the same categories as the Therapy Process Code showed exact agreement scores of .89 for cooperative codes and .75 for resistance codes. Similarly the Therapist Behaviour Code received a .75 exact agreement score (Chamberlain et al., 1984; Patterson & Forgatch). A cronbach alpha coefficient of .97 for this measure using the current population of families with a child with a disability indicated high internal consistency. Cronbach alpha coefficients for the therapist codes ranged from .43 – .90 while the coefficients for the client codes ranged from .27 - .63 respectively. Cronbach alpha coefficients of .67 and .65 were found for the two new additional codes *"client asks a question"* and *"client supports another group member"*.

7.2.2.2 Reliability

To ensure a satisfactory level of reliability and validity was maintained using the Therapy Process Code, nine (15%) individual transcripts were analysed by an independent coder. The categories outlined in the Therapy Process Code were used to code all parental resistant and non-resistant utterances. A detailed manual outlining the definitions of the target behaviours including examples was used by the independent coder to ensure they had a clear understanding of the codes and the corresponding terms (see Appendix M). Training involved pre-reading of the manual, regular meetings to discuss examples and any discrepancies and difficulties with coding, practice sessions which involved jointly coding transcripts, and coding transcripts independently. Several criterion transcripts, which were not part of the larger sample, were used to train the independent coder. Before proceeding to the larger sample of transcripts an inter-rater reliability of at least 80% (*mean code agreement* = 86.93%) was achieved on the criterion transcripts.

Kazdin (1984) recommends that inter-rater reliability scores should be above 80%. However, Sattler (2002) argues that an acceptable level of agreement using the Kappa coefficient is .70. If both coders agreed on the code for each sentence then an agreement was scored. Disagreements were scored if the coders had discrepancies in coding or failed to code a sentence. The inter-rater reliability for the nine research transcripts was calculated to be Kappa = .76.

7.2.3 Procedure

Eight therapists ran a combined total of 16 Stepping Stones groups. Each therapist facilitated between 1 and 4 groups. Data were collected from the homework review segment of session 2, 3, 4, and 5. Observations were considered to be the best form of data collection for this part of the study as they are unobtrusive and provide a detailed picture of complex interactions (Marshall & Rossman, 1999). During the observations, therapists supported parents to discuss how they were practicing the strategies that they had learnt in the group, at home and whether they were experiencing any difficulties. The mean homework segment times for groups ranged from 18.45 minutes for session two, 24.40 minutes for session three, 20.01 minutes for session four and 19.97 minutes for session five. All homework segments were video-taped and transcribed verbatim. To maintain confidentiality all parents and children were given a pseudonym. For a detailed description of the research procedures see page 119.

Of the 58 therapy sessions that were video-taped, one was deemed faulty. The sound on one tape (Session 2, group 6) was not audible and therefore data was not available for these parents. In addition, one group was conducted over a three day period in the country rather than across the normal 5 weekly sessions and video data are only available for sessions two and three for these families. Therefore a total of 57 transcripts were available for analysis.

7.3 Data Analysis

The first stage of analysing the observational data involved coding each transcript according to the definitions and classifications outlined in the Therapy Process Code. The coded transcripts were then used to determine the frequency of each separate code for each

individual participant across each session. A series of descriptive and frequency analyses using SPSS for windows (Version 15) (SPSS Inc, 2007) was used in order to gain a detailed picture of parent and therapist verbalisations during parent training. Verbatim excerpts describing each individual code are also provided as examples. Because of the problem of inter-dependencies with the therapist codes only descriptive information is provided. Therapist codes were not used in the regression analysis.

The client codes challenge/disagree, hopeless/blaming, defend self or others, own agenda/sidetrack, answer for someone else, disqualify previous statement, verbal attacks, and non-resistant verbalisations derived from the Therapy Process coding system were then used as predictors in a series of regression analyses. The aim of this analyses was to determine whether parent verbalisations in group-based parent training could predict both parent and child outcomes. Regression analyses were used as these techniques allow predictions to be made about relationships across multiple time points. Regression analyses also provide flexiability in gaining meaning from real world problems (Tabachnick & Fidell, 2001).

Due to the small number of resistant codes across group sessions, all resistant codes were tallied to create a new code named *"total resistant behaviour"*. Each participant's scores for the resistant categories was totalled and then summed across the group sessions creating a total score for resistant behaviour. The codes "*participant supports another group member"* and *"participant asks a question"* were not included in the resistant behaviour code. This total resistant behaviour score and a total non-resistant score were used as the predictors in the regression model.

Hypothesis 1, 2, 3, and 4 were tested using four 2-steps multiple regression analyses. The dependent variables were child behaviour problems as reported by parents and parental depression, anxiety and stress. The dependent variables were all post-test scores. Predictors were entered in a hierarchical order with the relevant child or parent pre-test score being entered on Step one and total non-resistant and total resistant verbalisations entered on Step two. As each of the four regressions were hypothesis driven, statistical significance was evaluated at the conventional per-test alpha level of .05 (Howell, 2007).

7.4 Results

7.4.1 Descriptive Results for Parental Resistant and Non-resistant Behaviour Codes

Table 16 summarises the distribution and frequency of therapist and client codes across sessions. The most commonly occurring client code was *non-resistant behaviour* across all sessions with a mean of 0.61 per minute for session two, 0.63 per minute for session three, 0.7 per minute for session four and 0.8 per minute for session five. This shows that parents with a child with a disability attending group-based parent training were most likely to verbally participate in a non-resistant manner throughout the therapy sessions. The next most commonly occurring code was *client supports another group member* for all sessions. In comparison, parents generally did not answer for someone else, contradict themselves or choose not to answer a question given by the therapist.

In terms of therapist codes, the most frequently coded category across sessions were statements of a supportive/empathic nature. Questions and statements requesting more information were also commonly used by therapists across all group sessions. Table 17

provides verbatim examples to illustrate each client and therapist code from the group sessions.

Table 16

Distribution and Frequency of Therapist and Client Codes Across Sessions

	Session 2			Session 3			Session 4			Session 5	
Therapist Codes	**N**	**Mean**	**Total**	**N**	**Mean**	**Total**	**N**	**Mean**	**Total**	**N**	**Mean**	**Total**
Support / Empathise	14	1.25	17.55	15	1.2	17.94	14	1.42	19.84	14	1.2	16.75
Teach	14	0.54	7.58	15	0.6	8.97	14	0.59	8.28	14	0.69	9.66
Question / Information Seek	14	0.93	13.04	15	0.86	12.84	14	0.91	12.72	14	0.98	13.8
Structure	14	0.18	2.58	15	0.14	2.07	14	0.18	2.5	14	0.15	2.13
Disagree / Confront / Challenge	14	0.006	0.09	15	0.02	0.28	14	0.01	0.21	14	0.03	0.42
Interpret / Reframe	14	0.26	3.62	15	0.33	4.97	14	0.3	4.19	14	0.34	4.71
Facilitate	14	0.74	10.42	15	0.88	13.19	14	0.8	10.98	14	0.87	12.17
Talk	14	0.04	0.63	15	0.08	1.25	14	0.025	0.35	14	0.04	0.51
Client Codes												
Challenge / Disagree	55	0.025	1.38	60	0.03	1.62	50	0.02	1.04	49	0.02	0.8
Hopeless / Blaming	55	0.05	2.5	60	0.03	1.61	50	0.02	1.05	49	0.04	2
Defend Self or Others	55	0.02	0.89	60	0.02	1.28	50	0.01	0.68	49	0.02	0.75
Own Agenda / Sidetrack	55	0.01	0.73	60	0.03	0.66	50	0.02	0.96	49	0.01	0.46
Answer for Someone Else	55	0	0	60	0	0	50	0.002	0.07	49	0.001	0.04
No Answer / No Response	55	0	0	60	0	0	50	0	0	49	0	0
Disqualify Previous Statement	55	0	0	60	0.003	0.2	50	0	0	49	0	0
Verbal Attacks	55	0.003	0.14	60	0.003	0.2	50	0.002	0.1	49	0.0023	0.11
Non – resistant	55	0.61	33.59	60	0.63	37.69	50	0.7	34.82	49	0.8	39.13
Client Supports Another Group Member	55	0.08	4.35	60	0.082	4.89	50	0.06	3.25	49	0.06	3.16
Client Asks a Question	55	0.04	1.99	60	0.03	1.8	50	0.02	0.84	49	0.04	2.11
Talk	55	0.008	0.46	60	0.008	0.53	50	0.01	0.46	49	0.01	0.72

Note. N = Number of participants

Table 17

Verbatim Examples of Therapist and Client Codes

Code	Example
Therapist Codes	
Support / Empathise	"Good stuff you had a go at the ignoring"
Teach	"…Just having the pictures there you can draw it all together that can be part of the afternoon activity the tidying up you can take a picture on a digital camera, you can even just show it on the camera, right now we are doing your room and when she brings up something different you can say what are we doing now can you remind me in a nice calm voice and keep focused"
Question / Information Seek	"So how many times did you do that?"
Structure	"…So what I'll get you to do I'll go around the room and tell me about how you think you went with your homework and whether you can say two things that you thought went well and maybe one thing that you might do differently so just to give a bit of feedback..."
Disagree / Confront / Challenge	"So when you actually go and get him and you say to him obviously ok you are being quiet in time out or something like that and what Stepping Stones suggest is that you don't go over the issue again".
Interpret / Reframe	"So he's being more responsive with you being more very direct in an instruction"
Facilitate	"ok" "mmm" "yes"
Talk	"No I was just…"

Client Codes	
Challenge / Disagree	"Some thing might work with other things just not this"
Hopeless / Blaming	"Yeah yeah you feel like walking, throwing your hands in the air and saying that you can't deal with it"
Defend self or others	"And how much for a hurry we're in. So I mean I can't wait two hours in the morning for him to have weet-bix. So I have no choice but to feed him because I can't let him go hungry because I believe that creates other issues
Own agenda / Sidetrack	"Let's go to the pub the babysitter is not expecting us"
Answer for someone else	Therapist to parent one: "Is that the sort of attention you were doing?" Parent two: "Played for about five minutes"
Disqualify previous statement	"Believe it, it's god's power, it's the power of god and she has absolutely become a little angel she is just so good and compliant and when the other one fights with her she gives in she's just so sweet and she's singing all day and she's prayer songs and she's just So so beautiful I can't explain it it it's just like a miracle where the other little one is still having tantrums and things are not working out for her..."
Verbal attacks	Husband: "I don't agree with that" Wife: "I do" Husband: "Obviously you agree with yourself" Wife: "I do agree with myself, but I see it probably a bit more than you see it too"
Non – resistant	"I felt really positive when I walked away Monday night and I thought I did really well up until Saturday umm and I was conscious of rewarding just small things saying well done and clever and I got dirty great big smiles for it so that was a plus plus sort of thing"
Client supports another group member	"Can they [your children] learn to visit my place?"
Client asks a question	"That's what I was going to ask you have you got

	a list of what so called normal kids do between the ages of 6 and 7 and 8?"

7.4.2 Data Screening

An examination of *z*-scores for univariate outliers revealed one score that exceeded the criteria of 3.29 ($p < .001$, two tailed test) (Tabachnick & Fidell, 2001). This score was checked for accuracy with the original questionnaire; however, no corrections were required. Mahalanobis and Cook's Distance were used to screen for multivariate outliers. None were found. The univariate outlier was assigned a less deviant score to reduce its impact (Tabachnick & Fidell, 2001), leaving 36 cases available for the analysis.

The scatter plot of the standardized studentized residuals against standardized predicted values was examined for violations of the regression assumptions of linearity, homoscedasticity and normality. The scatter plot revealed that the cases were generally randomly distributed about the central horizontal axis indicating that all three assumptions had been met (Tabachnick & Fidell, 2001). Tolerance levels less than .2 are presumed to indicate multicollinearity (Tabacknick & Fidell, 2001). The tolerance levels for both predictors were .632, indicating that multicollinearity was not a problem.

For multiple regression analysis, Tabacknick and Fidell (2001) recommend using a sample size of between $50 + 8m$ or $104 + m$, where m represents the number of predictors. Using this 'rule of thumb', between 66 and 106 participants would be required. Given that the sample size for this analysis only reached 36, caution should be used when interpretating the results.

7.4.3 Predictive Results for Parental Resistant and Non-resistant Behaviour Codes

After controlling for pre-test child behaviour problem scores, it was expected that non-resistant parent verbalisations would be significantly associated with lower levels of child behaviour problems. Neither resistant, nor non-resistant behaviours explained a significant proportion of the variance in parent reported child behaviour problems, either individually (sr^2 = .01, p = .279; sr^2 = .02, p = .137) or in combination (R^2 = -.024, p = .319).

It was also expected that non-resistant verbalisations would be associated with lower levels of parental stress, depression, and anxiety after controlling for pre-test scores. Neither resistant, nor non-resistant behaviours explained a significant proportion of the variance in parental stress, either individually (sr^2 = .004, p = .652; sr^2 = .006, p = .579) or in combination (R^2 = .026, p = .495). However, after controlling for pre-test scores , the total resistant behaviour score was able to account for a significant 6.5% of the variance in parental depression at post-test (sr^2 = .065, p = .040). This indicates that parents who verbalised their resistance over the course of the group sessions were more likely to report lower levels of depression at post-test. However, non-resistant behaviours could not explain a significant proportion of the variance, either individually (sr^2 = .04, p = .108) or in combination (R^2 = .067, p = .111).

Neither resistant nor non-resistant behaviours was able to account for a significant proportion of the variance in parental anxiety at post-test (sr^2 = .02, p = .314; sr^2 = .06, p = .081). However, when combined, these variables accounted for a significant 22.2% of the variance in parental anxiety at post-test (R^2 = .222, p = .009). This indicates that the combination of parental resistant and non-resistant utterances across the group therapy sessions was associated with increased parental anxiety following the completion of the program.

7.5 Discussion

The present study was designed to investigate the impact of parent verbalisations relating to their attempts to change their child's behaviour, and the impact of such attempts on parent mental health outcomes and parent reported child behaviour problems. Results using the Therapy Process Coding procedure revealed that the most commonly occurring client code was *non-resistant behaviour* across all sessions. This shows that parents with a child with a disability attending group-based parent training in this sample were most likely to verbally participate in a non-resistant manner throughout the therapy sessions. The code *client supports another group member* was also commonly used throughout therapy sessions. This suggests that parents with a child with a disability attending group-based parent training frequently shared verbal support, tips and ideas with other group members. Therapists also seemed to take on a caring role by making statements that were most often supportive and empathic.

Contrary to the hypotheses, resistant and non-resistant parent verbalisations were not associated with reductions in child behaviour problems or parental stress. However, resistant and non-resistant parent verbalisations in combination were associated with increased parental anxiety at post-test. In addition, total resistant behaviour was found to be associated with a reduction in parental depression at post-test.

It was hypothesised that total non-resistant parent verbalisations would predict a reduction in parental anxiety. However, contrary to expectation, analysis revealed a significant positive association between the combination of resistant and non-resistant verbalisations with parental anxiety at post-test. It is important to note that this increase in anxiety was not in the

clinical range. Anxiety scores at both pre-test and post-test were all within the normal range (Lovibond & Lovibond, 2002). Hence, the combination of resistant and non-resistant utterances and their association with higher levels of parental anxiety following the completion of the program indicates that parents who voiced their struggles and their successes were more activated through the process of group-based parent training sessions. This result can be interpretated as parents showing healthy levels of arousal. Parents who are thinking about the content of the program, challenging themselves and deciphering whether the presented strategies would be a good fit for their child would be considered to be engaged in the program and are likely to experience an increase in their own level of arousal at the completion of the program.

It was also hypothesised that total non-resistant parent verbalisations would predict a reduction in parental depression. In contrast, the results showed that resistant parent verbalisations were significantly associated with reductions in parental depression at post-test. Parents who were challenging, questioning, and exploring the content of the Stepping Stones groups were found to be less depressed at the completion of the program. This suggests that parents who are questioning and evaluating the content of the program are more engaged and hopeful about their role as a parent and are less likely to give up and experience heightened rates of depression, after completing the program. It is also likely that parents who expressed their resistant thoughts within the group sessions were given alternative options or strategies by the therapist as a way of overcoming any difficulties. Therapists may have helped the parent explore their concerns and difficulties in non-judgemental and respective manner. Expressing concerns and bringing resistance into the open was associated with a modest reduction in depression for parents at the end of the program, after controlling for pre-test depressive symptoms.

The lack of support in the current study for the link between parent verbalisations and child behaviour outcomes and parental stress is inconsistent with findings found in previous studies examining parental engagement. Baydar et al. (2003), Reid et al. (2004) and Garvey et al.'s (2006) findings on the relationship between parental engagement and outcome variables indicated significant associations between engagement and treatment outcomes such as child behaviour difficulties, parental depression, and parenting skills. However, their definitions of parental engagement included therapist rated measures of parental participation in group discussions and how actively involved parents were in therapy sessions, rather than the actual parent utterances. These studies showed that attendance, homework completion and therapist rated involvement in sessions was associated with improvements in parental depression, parenting skills and child behaviour problems. In contrast, this study used actual parent utterances to predict child behaviour and parent mental health outcomes. These utterances, resistant and non-resistant, accounted for much smaller amounts of variance compared to therapist ratings of parent involvement.

There are a number of possible explanations for the lack of significant results in the present study. Despite the similarities between the present study's use of parent verbalisations as an indicator of parental involvement and those described by Baydar et al., Reid et al., and Garvey et al., the measurement and overall engagement definition are notably different. Baydar et al. (2003) and Reid et al. (2004) combined measures of attendance, homework completion and therapist-rated involvement in sessions to predict treatment outcomes. Similarly, Garvey et al. (2006) used a combination of measures examining attendance, active parental participation and parental non-resistant uptake and application of the program's principles to predict treatment outcomes. In comparison, only parent utterances during group sessions were used to predict treatment outcomes in the current study.

The current study included only 36 parents who participated across the four sessions. Hence, another possible explanation for the lack of significant results may be due to the lack of statistical power. In order to have an 80% chance of capturing a medium to large association between the outcome variables and the predictors a sample size between 66 and 106 was required (Tabachnick & Fidell, 2001). Because of the requirement of parental attendance at all four sessions in order to have data included in the analysis, the sample size was small, which resulted in a low level of power. It may be that significant associations between the dependent variables and the predictors could be detected if a larger sample size was available. However, as the amount of variance accounted for by the significant regressions was small, parental utterances, either resistant or non-resistant may not be strong predictors of child behaviour problems or parental mental health.

The complexity and involvedness of the data is also another factor to consider. Although the transcriptions provided a detailed account of every interaction between each parent and the therapist, converting the observational data into quantitative data proved to be difficult due to the problem with inter-dependencies. Each group leader interacted with more than one parent attending a group program. This clustering of effects was not controlled and may have reduced the reliability of the results. This interdependence difficulty also prevented the examination of the impact of the therapist codes on parent or child outcomes.

Quantitative analyses of the therapy process codes were limited by interdependencies, and a small sample size. Hence, coding the transcripts via a quantitative methodology seemed to miss more global and important processes that families with a child with a disability experienced as part of attending group-based parent training.

7.5.1 Conclusions

In summary, this study revealed that both resistant and non-resistant parent verbalisations in combination were associated with increased anxiety at post-test. However, as the anxiety levels were within the normal range, this increase appears to be related to arousal and engagement, rather than pathological anxiety. In comparison, parental resistant verbalisations were found to be associated with reductions in parental depression at post-test. These results suggest that parents who challenge, question, and think about the content of the program are likely to become engaged in the group process and thus experience more hope and less depression. This engagement, interest and active participation in the group is also likely to increase parents' anxiety levels by naturally increasing their level of arousal. No association was found between parent verbalisations and parental stress or parent reported child behaviour problems. Although coding the transcripts using the Therapy Process Code provided a very detailed picture regarding the nature, content, and frequency of parent verbalisations, these results fail to capture the unique personal journey that parents with a child with a disability go through when participating in group-based parent training. The next section will explore how parents change and respond to group-based parent training across time.

CHAPTER EIGHT

Study Three

Parental Experience of Group Based Parent Training

8.1 Introduction

Study Three was designed to investigate the moment by moment experiences of parents with a child with a disability participating in group-based parent training. Qualitative research methodology was adopted in order to study parents' thoughts, emotions and behaviours surrounding normal day to day situations, with a significant focus on understanding personal meanings and experiences (Berg, 2004). The methods used in qualitative research vary considerably and are constantly evolving from very controlled procedures to largely uncontrolled and open techniques (Berg, 2004). Phenomenological approaches strive to understand a "phenomenon as it is typically lived and perceived by human beings" (Leedy & Ormrod, 2005 p. 144). The experience of parents with a child with a disability participating in group-based parent training programs was analysed by adopting an interpretative phenomenological approach which is often used to understand process issues (Smith & Osborn, 2003).

8.2 Research Aims and Questions

This research aimed to develop a greater understanding of the way families with a child with a disability engage and change with the process of therapy over the course of a group-based

parenting program by addressing the following questions 1) How do parents engage and change with their participation in group-based parent training sessions? 2) How do parents with a child with disability describe how they cope with child behaviour problems? 3) What difficulties do parents experience as they attend group-based parent training sessions?

8.3 Method

8.3.1 Participants

Participants were a subset (n = 71) of a larger sample (n = 79) of parents, living in Western Australia who had at least one child (*Mean age* = 5.66) with a developmental disability and parent reported behaviour problems. Fewer parents participated in this part of the study as two families did not give consent to be video-taped and six families only attended session one and were not videotaped. Therefore parents who participated in this study had to have attended at least one session other than the initial session.

8.3.1.1 General characteristics of participants.

Of the 71 parents involved in this part of the study, 66 were mothers. The age of primary care-giver ranged from 28 to 59 years. Approximately 68% of the families reported being original families (both biological or adopted parents present) while 23.5% reported being single parent families. Approximately 68% of the target sample of children was male (n = 48/71). The most prominent child disability categories as reported by parents were Autism/Pervasive Developmental Disorder (27.9%, n = 19/68), Developmental delay (23.5%, n = 16/68), and

intellectual disability (including Down syndrome) (16.2%, *n* = 11/68). Fifteen parents (22.1%) reported more than one primary disability type. Additional child health problems were reported by 27.7% (*n* = 18/65) of parents. Eligibility criteria were the same as outlined in Study 1 (see page 106). A detailed description of the demographics of this sample is provided in Table 18.

Note. The demographic percentages do not have consistent total numbers due to incomplete or missing data

Table 18

Demographic Variables for Parents involved in Qualitative Study

Demographic Variable	N	Percentage
Marital Status		
Married	45	66.20%
Separated	4	13.20%
Never married (Defacto)	6	8.80%
Average no of people in home		
Two	4	6.10%
Three	19	28.80%
Four	21	31.80%
Five	16	24.20%
Six	6	9.10%
Education of primary care-giver		
Year 10 – 11	20	29%
TAFE / College	14	20.30%
University degree	13	18.80%
Employment status of primary care-giver		
Yes	22	31.90%
No	44	63.80%
Self employed	3	4.30%
Occupational time of primary care-giver		
Full time	3	14.30%
Part time	18	85.70%
Employment status of partner		
Yes	37	72.50%
No	8	15.70%
Self employed	6	11.80%
Occupational time of partner		
Full time	33	97.10%
Part time	1	2.90%
Occupational categories of partner		
Manager / administrator	11	30.60%
Tradesperson	8	22.20%
Help from mental health professional (pst 6mths)		
No	36	52.90%
More than one	12	17.60%
Counsellor	7	10.30%
Social worker	5	7.40%
Other professional	5	7.40%
History of Mental Illness		
Yes	32	55.20%
No	25	43.10%

Do not know	1	1.70%

8.3.2 Procedure

The procedure for this study is the same as that outlined in study 1. Therefore for a detailed description of the procedure see page 119.

8.3.3 Data Analysis

An interpretative phenomenological analysis using a qualitative analytic method was used on the transcript data in order to develop a set of emerging themes that characterised parents' experiences in participating in a group-based parenting program. The software package QSR Nvivo 2.0 (QRS International Pty Ltd, 2002) was used for organising and managing the qualitative data which included 60 transcripts. Interpretative phenomenological analysis (IPA) aims to "explore how participants make sense of their experiences" (Chapman & Smith, 2002, p. 126). Despite aiming to understand the world from the perspective of the participant, this approach takes into consideration the idea that the researcher must use personal interpretation to make sense of the data (Willig, 2001). This approach was selected in this study due to its usefulness in areas "concerned with complexity, process or novelty" (Smith & Osborn, 2003, p. 53). The process of analysing the transcripts using an interpretative phenomenological approach follows several key steps (see Table 19).

Table 19

Steps of Interpretative Phenomenological Analysis

Step	Description
1	Reading of the initial transcript to familiarise with data
2	Write notes about initial thoughts
3	Develop themes from initial thoughts
4	Clustering of themes into sub-ordinate & ordinate themes
5	Production of a summary table with a detailed description of each theme
6	Integration of cases using the original list of themes
7	Generation of a list of master themes based on all transcripts
8	Supporting verbatim extracts used in write up to support existing themes

Note. Adapted using Payne, Joseph and Tudway (2007); Willig (2001).

Based on the researcher's initial impressions of the key ideas in the transcripts, emergent themes were identified. This list of themes was then used by an independent coder to code 47% of randomly selected transcripts. Once the validity and reliability of the list of themes had been achieved, a master list of ordinate and sub-ordinate themes was established. The majority of the initial themes were then clustered into six ordinate and 14 sub-ordinate themes.

8.3.3.1 Reliability.

Although Neuman (2006) argues that qualitative research is constantly evolving and often involves examining complex processes which are difficult to repeat, a random sample of the transcripts were coded by an independent reviewer to ensure a satisfactory level of reliability had been maintained. This process involved confirming and disconfirming themes found in

the interpretative phenomenological analysis thus producing a master list of ordinate themes. To ensure a valid and complete picture of the processes involved in group parent training had been achieved, an independent reviewer coded 27 (47%) randomly selected transcripts. The independent reviewer had a degree in psychology and background knowledge of the parent training literature and the Stepping Stones Triple P program. The independent reviewer was given the initial themes developed by the researcher and asked to code the transcripts using these themes, while also identifying any new themes which may appear. The researcher and the independent coder then reviewed the themes in order to identify similarities and to reconcile any discrepancies. If both reviewers agreed on the theme for each issue then an agreement was scored. Disagreements were scored if the coders had discrepancies in coding and could not obtain a consensus between the specified themes. Inter-rater reliability was calculated by dividing the number of agreements with the total number of items and then multiplying by 100. Inter-rater reliability for the interpretative phenomenological themes prior to negotiation was 68.69%. However, after negotiation inter-rater reliability was 92.17%.

8.4 Results

8.4.1 Interpretative Phenomenological Analysis

Parents' experience of group-based parent training can be summarised by the following major themes; 1) advocate for child's behaviour, 2) dealing with other's reactions, 3) need for change, 4) its' hard work, 5) learning to cope and 6) experience of success. These themes provide a detailed account of how primary care givers with a child with a disability engage and change with their participation in group parent training sessions. Table 20 displays the ordinate and subordinate themes for the data.

Table 20

Ordinate and Subordinate Themes related to Group Based Parent Training

Ordinate Themes	Subordinate Themes
Advocate for child's behaviour	Personality factors
	External / environmental factors
Dealing with other's reactions	Within the home
	Community
Need for change	Enduring problem
	Realisation of mistakes
Its' hard work	Parents doubt themselves
	Reasons for not completing the assigned homework
	Strong feelings / resistance
Learning to cope	Using old strategies
	Taking care of yourself as a parent
	Planning for the future
	Use of humour
	Acceptance
Experience of success	

Advocate for Child's Behaviour

Most parents provided explanations for their child's behaviour. These attributions or justifications encompassed two subordinate themes including personality factors and external/ environmental factors. Many parents provided these explanations as a way of coping or coming to terms with their child's problem behaviour. Parents often recognised new external / environmental factors or information which may be contributing to their child's behaviour.

Personality factors.

At times parents provided explanations for their child's difficult behaviour which was beyond their control. Personality explanations tended to give the general impression that nothing could be done to change the behaviour as the problem was within the child.

"But it's just, he's always done it, it's just the way he is".

"Even during that phase that throwing phase it's like a phase that all kids go through and so".

External / environmental factors.

During the training parents were encouraged to be "detectives" and to investigate patterns and triggers in their child's problem behaviour. Many parents were experts at noticing changes in their child's circumstances, the environment or their own behaviour and thus adjusting their expectations of their child. Noticing triggers of problem behaviour gave parents the ability to be flexible and accepting of the problem behaviour or gave them greater confidence about bringing about change. Parents discussed underlying illnesses, functions of their child's behaviour, and changes in their own feelings.

"And I am sure next time we go he will you know, remember it. But like I said I'm at Coles all the time, so it is a shop I go to all the time and he was in a good mood and it was only him. So you know you have to sometimes think of all that too …".

"So we now have um, at the end of the school holidays we are now having tantrums that, back to tantrums that last longer because she hasn't had as much going on, there's not as much stimulation for her, that she needs so we're getting a bit more of that which I've noticed".

"And that's what I have wondered. I thought maybe it was just the way I was approaching him and speaking to him".

Dealing with Others' Reactions

During the group sessions parents expressed the difficulty of dealing with other people's reactions to their child's behaviour and their own parenting skills. Family members and people outside in the community often expressed negative comments which was hard for parents to come to terms with.

Within the home.

Many parents voiced their frustrations and annoyance about trying to get their partner to be united in their parenting approach. Other family members such as grandparents and older children within the home were often a source of frustration and conflict due to their lack of understanding about what the parent was trying to achieve.

"Yes, yes. So I think, well, I've tried, tried to have discussions with his dad, saying look, he's copying you, you know, how can I stop him doing it when you're doing it, so…".

"I'd really like to organise a routine so, anyone that's got any times on routine would be really good except I have a husband on the other side that says he does not want a routine, he wants things to just flow along as they should".

"But I have a problem with one of the other boys, the 11 year old, stepping in before I can diffuse anything with Karl. I just said to him 'look mate, it's actually making it worse. So why don't we see what I can do first'".

Community.

Parents expressed their dissatisfaction and frustration with dealing with others' reactions in the community especially in relation to school staff. Parents were continually managing the comments made by other parents including neighbours, school staff, and people they did not know at all.

"Sometimes he will say it to a stranger and the stranger will just look at me like".

"…And I'm trying to find out who's supposed to help us and school goes 'here she comes again!" (laughs) and things like this 'oh you're very persistent!' and I said is that a compliment or."

"…and that where my neighbour stepped in and said you are being naughty you are not listening you're not going to the park and again I just didn't think to interject".

Need for Change

Most parents expressed their frustration and annoyance at their child's continual problem behaviour despite their best efforts to change their own parenting skills. Parents also seemed to recognise that certain behaviours were no longer appropriate and that the situation had to change. Two subordinate themes emerged; enduring problem and realisation of mistakes.

Enduring problem.

Parents voiced their frustrations about not seeing a change in their child's behaviour despite their own best efforts. Many parents also reported that their child's behaviour had worsened since they had changed how they were managing the problem behaviour. In addition, parents seem to express that the initial behaviour management strategies that they had adopted were not having any impact on their child's behaviour and the behaviour was continuing to be a problem within the family.

" Um he, he loves it he reckons it's great so but I just get frustrated cause I have to use these all the time to get him to do something, I just get so frustrated".

"He just seems to lash out in a way, it doesn't matter how many times you tell him, he'll just keep hitting and punching, things like that, to Lara mainly".

"She doesn't like being left alone. And lately when I go out, when I leave, she won't let me out of her sight. It's getting worse, she used to just go off".

Realisation of mistakes.

Many parents seemed to want a "quick fix" when the new strategies were not working and problems persisted. Several parents admitted to reverting back to more aggressive parenting strategies such as shouting, smacking and screaming and expressed unhappiness and guilt about this:

"I said 'Anne, come on your turn?' no. I said 'Anne, I don't want to get angry with you'. No. 'Do you want a smack?' and when I, she, and when I get pushed to that limit, she sort of, she

goes grr and I said Anne I'm getting really angry and she just sort of opened her mouth and cooperated but I don't like using that as a …".

"And we stopped it and she was just so angry with me and, and it was, it was over a build up of silly little things and I probably smacked her over the wrong thing in the end anyway cause I was just frazzled".

"Well last Friday actually I was very, I lost my temper and I shouldn't have, I regret doing that but he growled at me so …".

Parents expressed a greater level of awareness about their parenting skills and were able to identify when they had not done something correctly. Parents seemed to be surprised that they had not noticed these situations earlier and appeared to be confident in attempting to change how they handled the situations by implementing the new strategies:

"So it was in your face, it was so stupid that I never picked it up".

"And yeah, really on the rewards, I tend to reward a whole heap of wrong things, so working on those and not rewarding what I shouldn't be, so yeah".

"Clear and calm instructions as well, mainly for me cause I've got a bad habit of just going da da da like that's where I have to stop myself and say Anthea, can you go and do mm, so that was a bit of training for me cause I'm usually tearing around the house doing things and just off like this orders, and of course the kids, they're not going to respond to that…".

"I have always praised my children, always told them beautiful, they're gorgeous, they're wonderful, they're clever but never said why, you know".

Its' Hard Work

This theme addressed the difficulties parents found when attempting to implement strategies learnt within the program. It encompassed several subordinate themes including; 1) parents doubt themselves, 2) reasons for not completing something, and 3) strong feelings / resistance.

Parents doubt themselves.

Many parents spoke of a feeling of reluctance or hesitation about using certain parenting strategies or what to do next, especially when their child behaved in an unexpected manner. Parents also voiced their concern about doing the wrong thing and thus having a negative impact on their child's behaviour.

"I've found the same thing as well, we've gone backwards I think and I'm thinking you know as I'm putting these things in place and things have just gone haywire. Is it because I'm doing it wrong?".

"Yeah. But there's where he's banging his head on the floor on his toys, and I don't know whether it's pain or frustration, I think it could be both um and I don't know what to do there whether cause I turn him over and he just flips back and I don't know I've gotta stop him cause he's hurting himself you know but I don't know if I'm paying attention to him because I can't, it's not stopping".

"And everyone says they're terrible when they're doing that and yeah so I'm thinking what are you meant to do if they're in pain? I mean you still need to discipline them but how do you discipline them do I change strategies for that or do I still keep going?"

Reasons for not completing the assigned homework.

Despite parents' best intentions, many parents discussed time limitations and a busy schedule as significant reasons for non-completion. Sickness, family commitments, and difficulty understanding the material were also reported as reasons for not completing the assigned homework:

"I just found that there was just too many boxes and things in there as well you know? So that was too much for me, too much, too hard, too busy".

"Mine was spending more time and also giving praise. None of which I recorded. Basically the first day or two I did praise him and the time I can't remember but that's my biggest problem is one of patience and two of time. Simple as that…".

"Cause the intentions are great the first day, not too bad the second day and then kind of other things happen and I forgot so…".

Strong feelings / resistance.

Many parents reported how attempting to change their child's behaviour by implementing the new strategies was hard work for them emotionally.

"So I got into my car bursting into tears because she was just being absolutely horrible. Which was really difficult and she pushed, pushed, pushed and I wouldn't give in. And of course not giving in, I had to cry and let it all out. It's so hard to be firm, I did but…".

"Yeah. But um so that's positive but the Billie stuff pfft I've lost it this week I haven't got the energy and I'm just not coping well at all and dinner I just can't be bothered cooking he's not going to eat it I don't care, just go to bed I don't care (starts crying)".

"Yeah, yeah and you just feel like walking, throwing your hands in the air and saying that you can't deal with it".

Some parents also verbally expressed their resistance to suggestions made by the therapist. These parents appeared to have quite negative perspectives and were not willing to give different strategies a try.

"I'm just looking at that list [of parenting strategies] going nup, nup, nup".

"It's easy to say a lot of times but sometimes it's a little more difficult to do".

"Yeah yeah it's it's yeah see I don't want, he's not going to get stamps for doing things that are expected. They're expected and he's got to do them so I'm not going to give him a reward for doing stuff which he has to do".

Learning to Cope

Throughout the group sessions, parents expressed many different ways of coping with their child's problem behaviour. Five subordinate themes emerged including using old strategies, taking care of yourself as parent, planning for the future, the use of humour, and acceptance. Parents seemed to adjust the parenting skills they learnt in the group to their own individual circumstances and lifestyle. Most parents seemed to have a greater sense of confidence in their parenting role and seemed to be able to effectively manage the constantly changing nature of their environment and parenting role.

Using old strategies (making things work).

Despite learning many new strategies to increase their child's desirable behaviour and to better manage their misbehaviour during the group sessions, parents described their use of practical strategies to deal with the current situation. Many of these strategies were used in the moment to moment situation to avoid escalation.

"…oh well he wasn't fine he had a very bad night actually. Um he was fine about that but the whole night he was crying out in his sleep and was, I eventually slept with him because he wasn't waking up but he was like…"

"We only have like an hour before she has to catch the bus so I just let her go cause I don't wanna, you know, overload her with stuff and, I just want her to take her time in the morning, get what she has to get done, get that settled, bit of satisfaction, be able to go to school and then it's our time in the afternoon and at night".

"So that's been quite difficult for me but I've compensated for it because I've known that it was going to be like that in the sense of putting him in his pyjamas if I know I'm going to be late or take him. And just taking a book out, trying to do little things that I know there's not going to be enough time for when we get home but still trying to keep the routine that he's used to".

Taking care of yourself as a parent.

Most parents discussed the benefits of both informal and formal support networks as a way of helping them continue to provide the best quality of care for their child and as a way of taking a break. Time out away from their parenting role or ways of relaxing were also discussed as being very important for parents. Parents discussed the positive aspects of having the support of the other group members who had similar circumstances and difficulties. Initiating the help of experienced professionals for certain problems also seemed to be apparent.

"…The Carer's Line is specifically set up for carer's needs and they are excellent. They've brought me down a lot of times and really put me in the right direction".

"Well when I have a shower, and he knows that when I have a shower during the day and I'm not going out anywhere 'mum's calming down',…"

"I've actually got a really good partner, we actually talk a lot…yep yep we're always talking. I also have breaks from Kyle too so that's …he actually lets me have time in the morning and gives Kyle breakfast and stuff like, it gives me a bit of space too".

"It's tough and that's why we're all here cause when you have a bad week we might have a better week but they're all we're all the same"

Planning for the future.

The issue of planning for the future and being aware of future challenges was strongly present in the parents' descriptions of their child's behaviour:

"I wanna work on it, like today I've decided I'm not going anywhere, I'm going straight home and I'm gunna have one hour before the children get home and I just wanna concentrate that on going, you know starting from this session today and then, and fully digesting that and then just go back you know? And just get back you know? Cause like I say I need to do it directly on the day, and the, and map out what I'm going to do for the rest of the week".

Parents also expressed their need to learn new behaviour management strategies as a way of preventing future difficulties with their child's behaviour as their children got older:

"And the other reason why I've come is Charlie is 7 going on 8 and I want him to have some skills as he's going into being a teenager because things start to change around teenage, and I need tools".

"...But now it's affecting Kasey, I can see as an objective position, that with Julie if I don't actually nip that in the bud now as she it become, it could become more annoying and have a bad influence on other children that I hadn't thought of...".

Despite the week to week goals that parents were working on within the group sessions many parents expressed the desire for future goals and changes they would like to see as their children got older:

"And that's sort of … I'd like to have that but I know I'm not going to be able to and the fight in between trying to get that is going to be huge. But I will work towards it one day in the sense that I would like him when he's 18 or 19 to be able to go out to restaurants and have socially acceptable…".

"At some point it's got to stop. When he's 18, it's not going to be appropriate so…".

Use of humour.

Most parents were able to see the humorous side to their child's behaviour and have a laugh about how they had responded to the situation. Having a joke seemed to remove some of the stigma associated with the problem behaviour and provided a comfortable setting for other parents to also discuss their concerns.

"Get some duct tape (hahahaha)…Duct tape around the hands…".

"Sometimes wring his neck, no he's been good".

Acceptance.

Many parents spoke of a level of acceptance of their child's disability and behaviour. Parents recognised that change was going to take time but were content to persevere with different strategies. Parents acknowledged that set backs were going to occur but they needed to

remain focused on what they were trying to achieve. Parents' expressions reflected a sense of confidence in their parenting skills.

"Yeah I tried to help him out, you know, in the end sort of, all I can do is the best I can do".

"All we can do is …try hard!".

"That's it, and whatever the behaviours are, which ever behaviour it is that you're monitoring it hasn't just occurred in a week anyway so if it takes us 6 or 7 weeks to work out I mean that's great".

Experience of Success

The experience of success in terms of reductions in problem behaviours or increases in new skills was paramount for parents with a child with a disability. As parents learnt new strategies in the group sessions and began to put them into practice and saw improvements in their parenting abilities and their child's behaviour they were delighted to share their ideas and situations among the group. Most parents described strategies they had learnt in the program and how it was impacting on their child's behaviour:

"They've been, the kids have been um, since doing the positive praise, Kirsten's been a gem. She's been absolutely magic, and because she's been so good I've been calmer with Jarod. And we've been keeping all the toys in the playroom and doing really well. And a few times Jarod's actually started packing away before being asked".

"So after seeing that video, I've just sort of gone from feeding him from the elbow and now, this has all happened in a week, and now he's pretty much doing the spoon himself and I've showed him how to hold the bowl".

"In one week, it was amazing. And just going to her and facing her rather than yelling from the kitchen 'go and clean up the bloody toy room' you know what I mean, like just that sort of thing, actually just going into her room and saying you know 'could you please just help mummy, or you know could you clean the toy room?' she'd just go off and do it no problem".

"She was fantastic. She went from being this pain in the butt to really helping. You know, and sharing and being absolutely gorgeous. And Simon follows what his sister does".

Most parents also expressed strong feelings of excitement, relief, and amazement at changes in their child's behaviour since the beginning of the program. This appeared to give parents hope and a renewed sense of commitment:

"…it's made a huge difference and her behaviour has increased, ah has improved out of sight this week".

"There's a light at the end of the tunnel after three weeks".

"Yes I'm actually starting to feel like, not so overwhelmed".

"In a week too, I mean our house is just amazing at the moment".

Changes in the target child's behaviour and in parenting skills seemed to have an extensive effect on the overall harmony of family life including positive changes in the target child's lifestyle, siblings' behaviour and the entire feeling of the home environment:

"…She loves them and it has made a big difference to her day".

"But what's really good is that the kids are actually happy, which is unusual".

"The praise works really well, it worked beautifully on the other two as well".

"Yes, yes, um things things in the house has calmed right down".

Parents expressed excitement and happiness about success being observed outside the family home by external people involved in their child's life. This acknowledgement of success from external people appeared to help parents maintain their commitment and energy in their parenting role:

"And I actually received my first phone call last Friday, the teacher called me to tell me how well Daniel's going at school and things like that …".

"It was just really, it made me feel so good inside. And he's doing really well at school at the moment and we've put our case management meeting back a couple of weeks because he's just going up and up and up and up. So I've just been on cloud nine…".

"Ohhh, yesterday there's a note from the school 'Mark was happy today'. Last night he was just, you know you could tell, his muscles relaxed, he didn't cry at all. So its been nice to, I just want to sit and be with him when he's like that…".

Most parents also acknowledged that their child may show problem behaviour at certain times but this was not a dire situation but rather they needed to remain consistent and continue with the strategies they had learnt.

"Yes, yeah, but it I can see it working though if you keep with it, if you keep at it, keep trying you know, I can see it working definitely".

"Yes yes definitely I've learnt patience".

"And if I can just stick with that and not give up we will achieve something".

8.4.1.1 Summary.

The experience of group based parent training for families with a child with a disability can be summarised by six ordinate themes including advocating for child's behaviour, dealing with other's reactions, need for change, its' hard work, learning to cope and experience of success. Parents in this study provided both internal and external justifications for their child's behaviour. Many parents seemed well equipped to notice triggers in their child's behaviour and modify their own behaviour and the environment. Dealing with other people's reactions including family, friends, and school staff was a source of frustration and annoyance for many families. At times despite parents' best efforts their child's behaviour did not shift creating a

need for change. As time progressed and parents learnt new strategies some began to realise that they may have previously made mistakes in their parenting role. Throughout the group sessions many parents reported that parenting was hard work. This was evident by parents doubting their new parenting skills, not being able to complete the assigned homework and reluctance to try new strategies offered by the group facilitator. Despite the hard work of parenting, all parents discussed ways of learning to cope. In addition all parents at different times in the group sessions discussed their experience of success. Sometimes this was a reduction in problem behaviour and at other times parents had managed to teach their child a new skill. This experience of success seemed to give parents a renewed sense of confidence and commitment to parenting.

8.4.2 Case Studies

Following on from the interpretative phenomenological analysis, several cases were examined separately. The case studies provide examples of themes across time. In this section two case studies are presented to illustrate the range of outcomes, one of a family who experienced a clinical improvement to therapy and the other family who did not respond to the treatment. The case studies were explored for similarities and differences in themes across sessions.

8.4.2.1 Case Study One.

Michelle is a 39 year-old married mother of three children aged 13, 9 and 6 years. Michelle's youngest child, Daniel, is registered with DSC and has an intellectual disability and several other health-related concerns such as mild hearing loss. Daniel attends primary school on a

full time basis. Michelle currently is not in paid employment; however, her husband is self employed.

The post-test assessment information reported by Michelle revealed a "recovery" in terms of child behaviour problems as defined earlier by Jacobson and Truax's criteria (1991). Michelle's depression, anxiety and stress scores remained unchanged but were below the clinical cut-off at post-test. Michelle attended all the group sessions including the final review session. Based on this information this family was defined as benefiting from the completion of the program.

8.4.2.1.1 Themes across group sessions for case study one.

Michelle's participation and verbalisations during session two revealed several key themes including "advocating for child's behaviour", "need for change" and "its' hard work". Michelle expressed surprise at the new information that she had identified regarding the function of Daniel's behaviour. This information was coded within the "advocate for child's behaviour" theme.

"…And I've noticed his shouting has gotten worse but there was only one incidence this week and that was when we had visitors. And I thought that Daniel's trigger. His getting attention, because I'm there talking to my sister, his not getting any attention and he first he started shouting…"

Michelle reported that the incident of shouting was enduring and had continued to occur for a significant period of time. Michelle also acknowledged that she may have made several

mistakes including not identifying that her attention may have been the trigger for Daniel's behaviour and that she may have accidentally rewarded Daniel for shouting by allowing him to jump on the couch. This realisation of mistakes and description of enduring problem were coded into the "need for change" theme. The theme "its' hard work" was also expressed by Michelle in that she stated that she had been unable to fill out the behaviour diary for a particular shouting incident because her sister had just arrived and her schedule did not provide the time.

Session three primarily encompassed the themes experience of success and learning to cope. Michelle reported great success at using an activity schedule for shopping with Daniel.

"Oh it was rewards and the activity schedule. I absolutely loved the activity schedule I reckon it was great for Daniel."

"I just find he learns social skills he learns, he learns to read, he learns life skills, he learns maths and counting. So I'm not just doing behaviour, we're actually doing all of those…".

During session three Michelle appeared to be learning to cope. She reported that she had managed to gain some respite from her children by not having all the children at home at once. Michelle was also planning for the future by practising going to school with Daniel carrying his bag during the school holidays and planning to modify her activity schedule. Michelle also discussed taking a break at her sister's house.

The themes "advocate for child's behaviour", the "experience of success" and "learning to cope" were apparent during session four. Michelle advocated for Daniel's behaviour and

expressed acceptance and understanding of his difficulties and appeared confident to cope with them.

"…But every other kid was doing that so that would make him do it, um after school".
"…I was holding one hand and then I don't know how he hit the wall, poor thing…so I let him off for taking the school bag…".

Michelle reported success during session four with fewer behavioural issues and more time "on track". Daniel was also learning new skills such as asking for help with the clip on his school bag which was a success for Michelle. When behavioural issues did arise Michelle appeared to be able to cope with small setbacks by continuing with the strategies learnt within the group.

"But only on Tuesday did I have him do that [throw his bag and go to playground] so I quickly grabbed him and brought him back and did it all and off we toddled. So that was the only day I had him running off to the swings...".

Similar to session four, the prominent themes during session five included "advocate for child's behaviour", "learning to cope" and "experience of success". Michelle not only noticed fewer behavioural issues in the home but also received a call from the school reporting on Daniel's good behaviour thus leading to her experiencing success.

"And I actually received my first phone call last Friday, the teacher called me to tell me how well Daniel's going at school and things like that so, you know…".

Michelle advocated for Daniel's behaviour by encouraging the school to adopt the same program that she was currently using at home. Michelle was also able to identify that Daniel's behaviour was most likely a function of his communication difficulties. Michelle appeared confident at learning to cope by planning for the future and using some of the techniques as a prevention tool.

"Yes, I mean that's what I was here for and it's happened so…If Daniel was going to fight, or hit somebody I could use those techniques…".

"Yes, and also it [the program] teaches you to have a look at what's going on and be more aware of what's going on you know…".

8.4.2.2 Case Study Two.

Penny is a 28 year-old married mother of two children aged 5 and 3 years old. Penny's youngest child, Chloe is registered with DSC and has an intellectual disability/developmental delay and dyspraxia. Penny currently works 6 hours in paid employment per week completing the accounts in her husband's roof plumbing business.

The post-test assessment information reported by Penny revealed that her scores for Chloe's behaviour were "unchanged" as defined by Jacobson and Truax (1991). Penny's depression, anxiety and stress scores remained unchanged but were below the clinical cut off at post-test. Penny attended all the group sessions including the final review session. Based on this information this family was defined as not benefiting from the completion of this program.

8.4.2.2.1 Themes across group sessions for case study two.

The prominent themes identified for Penny during session two included "need for change" and "its' hard work". Penny described Chloe's behaviour as enduring, getting worse, and that she was unable to leave her alone. Not being able to move out of Chloe's sight made it very difficult for Penny to cope with Chloe's behaviour and to attend to other tasks. Penny also realised that she had to change her own behaviour and started to attend to Chloe for short bursts of time when she requested her attention rather than trying to continue on with her current task.

"She doesn't like being left alone. And lately when I go out, when I leave, she won't let me out of her sight. It's getting worse, she used to just go off".

Session three comprised the themes "advocating for child's behaviour", "experience of success" and "its' hard work". Penny identified new information regarding the function of Chloe's behaviour which was coded into the "advocate for child's behaviour" theme. During session three Penny started to experience success by seeing fewer behavioural problems in some areas.

"Yeah, one good thing was less tantrums, I think because I spent a lot more time with her and didn't walk away, I stayed there, I played with her. Ah, yeah but the hitting was not any better at all so…".

Despite the initial success it was still hard work for Penny to find the time in her busy schedule to obtain the pictures for a communication book.

"Advocate for child's behaviour" and the "experience of success" were evident during session four. Similar to session three Penny was seeing changes in Chloe's behaviour and was identifying new additional information about some of the functions it served.

"The last couple of weeks she hasn't hit Peter so much but it's increased with me, but she still hits him sometimes".

"He walked away from playing with her and with me it's more, I say no".

Session five included the themes "advocate for child's behaviour", "experience of success", "its' hard work" and "need for change". Penny was still identifying new information regarding the function of Chloe's behaviour and was modifying her responses based on this information.

Sometimes putting the new strategies into practice was hard work for Penny. In addition, Penny sometimes doubted herself about what to do about a particular problem that continued to happen and expressed strong feelings about behavioural problems.

"…the only thing is he'll say it doesn't matter, but I know that it does matter".

"…it's hard to know how to teach her a way not to do that".

"…yeah she won't do it during the night as soon as I've put her to bed and she doesn't like it then I've gone away, she'll get back at me".

Although Chloe's behaviour was improving evident of the theme "experience of success", some problems seemed to be enduring leading to the theme "need for change".

"So you change the sheets and change her and tell her not to do it again, and she says she won't, but she does. Ten minutes later she's done it again".

8.4.2.3 Similarities and differences between the case studies.

Examination of the two case studies revealed two main themes which appeared to be different for the two different parents. Michelle, whose quantitative scores revealed a significant change in her child's behaviour problems at post-test, was learning to cope from approximately session two. This was evident by her planning for the future and taking care of herself as a parent. Although Penny, was experiencing success to some degree the theme "learning to cope" was not evident until session five. The second key difference between the two case studies was the theme "its' hard work". Penny whose quantitative scores revealed no significant change in her child's behaviour problems at post-test appeared to experience the theme "its' hard work" for a longer period of time even until the final session. Similar to Penny, Michelle did experience the theme "its' hard work" but this theme seemed to disappear by session three.

Both parents acted as advocates for their child which was evident across the group sessions. Parents seemed to become more aware and find new information regarding the function of their child's behaviour which helped them explain the reasons for their behaviour and provided an opportunity to make some changes. This new awareness seemed to be refreshing for parents and increased their confidence in making the appropriate changes.

Despite Penny's quantitative results suggesting that Chloe had not made any significant changes in behaviour both parents reported success qualitatively. Both Michelle and Penny described improvements in their child's behaviour throughout the program. However, Penny described a problem at session five that appeared to be enduring and long lasting. Therefore although she was experiencing success, at least one problem had arisen that she had not been able to shift. This was clearly different between the two different case studies.

8.4.3 Overall Summary

The present study revealed that all parents seem to experience each theme in group-based parent training with many parents moving in and out of different themes at a different pace. The information from the case studies revealed different patterns or stages for two different families with the key differences being with the themes "its' hard work" and "learning to cope". All parents who attended the group sessions discussed situations where their child's behaviour improved or where they had managed to teach their child a new skill. These experiences of "success" further add to the support of this program for families with a child with a disability.

8.5 Discussion

The importance of parental involvement and engagement in parenting programs is vital to the development of skills and the management of child behaviour problems, especially in families with a child with a disability. The present study aimed to develop a greater understanding of the way families with a child with a disability engage and change with the process of therapy over the course of a group-based parenting program. The process by which parents in this

study experienced the group-based parent training sessions can be summarised by six ordinate themes including; advocating for child's behaviour, dealing with other's reactions, need for change, its' hard work, learning to cope, and the experience of success. The two case studies illustrated how these themes were experienced by families that achieve changes in their children's behaviour and those who do not. The key differences between these families related to the themes "learning to cope" and "its' hard work".

Consistent with Spitzer et al.'s (1991) findings, parents with a child with a disability and co-morbid behavioural problems moved through a similar process of change to families with typically developing conduct-problem children. Spitzer and colleagues found the process of learning to cope more effectively with conduct problem children involved five distinct stages, namely acknowledging the family's problem, alternating despair and hope, tempering the dream, making the shoe fit, and coping effectively. A common theme experienced by families of typically developing and developmentally delayed children involves dealing with other people's reactions and opinions. Parents in this study reported how they found it difficult to cope and adapt to other people's reactions both in their home and community environment. It was often hard for parents to gain the commitment and support from other family members when implementing the new parenting strategies leading to increased feelings of frustration and annoyance. This theme is also consistent with Wellington, White and Liossis' (2006) study which found that the perceptions of important referents (e.g., family and friends) significantly impact parents' intentions to participate in parent training education. These results highlight the important role that family and friends' reactions can have on parents' ability to participate and engage in parent training programs.

Contrary to the findings of Spitzer et al., parents in the current study did not express strong feelings of anger, fear of loss of control or depression at the beginning of the program. Although evidence of heightened rates of depression and adjustment difficulties are commonly found in parents of children with disabilities, it did not appear to be a significant concern for the current sample of parents. This is consistent with the mean scores on the Depression Anxiety Stress Scale which revealed scores in the normal range for depression, anxiety and stress at pre-test. Clinicians facilitating the Stepping Stones groups used their own clinical judgment to screen out families with heightened adversity. Therefore this sample may reflect a better adjusted sample of parents of children with disabilities. Although families with significant adversity and stress were referred for individual psychological services in this study, the difference between the two samples of families may also be explained by several other factors. Parents with disabilities are often offered counselling and informal information immediately following a diagnosis which may have provided insight and reduced the sense of isolation for families in this study. In addition, parents of children with disabilities may attribute some of their child's difficult behaviour to their child's disability, reducing the likelihood of feelings of self blame and guilt. This notion of attributing the child's behaviour to personality factors or external factors was captured by the theme "advocate for child's behaviour". Parents provided justifications or excuses for their child's behaviour which seemed to allow them to cope or come to terms with the difficult behaviour.

The ordinate theme "advocate for child's behaviour" and the subordinate theme "personality factors" are consistent with the literature examining parental attributions in parents of children with externalizing problems. Hassall and Rose's (2005) review of the literature regarding parental attributions for children's behaviour in clinical samples found that "parents of children with behavioural disorders are more likely to attribute their children's misbehaviour

to causes that are internal to the child and which may therefore be beyond parental control" (p. 79). Parents in this study made similar attributions about their child's problem behaviour by referring to problem behaviours as the child "going through a phase" or that the behaviour could not be changed as it was "just part of the child".

Fewer emotional responses may have also been found in the current study as group Stepping Stones Triple P is offered to families as both a prevention tool and as a treatment strategy. Some of the families within this study were attending the group sessions as means of preventing challenging behaviour problems. Therefore these families may not have experienced the increased levels of depression, anxiety, stress and isolation that is commonly associated with challenging behaviour problems. It is also important to note, that families in the Spitzer study were examined throughout the entire therapy process from the intake interview including the group sessions to therapy consultations following the completion of the program. This is different from the current study where families were only examined during the homework review segment of session 2, 3, 4 and 5. Given that the intake sessions, telephone follow ups and the final review sessions were not analysed, further information or themes may have emerged as the follow-ups progressed.

Phase Two: "alternating despair and hope" identified in the Spitzer et al. (1991) qualitative study also has similarities with the sub-ordinate theme "realisation of mistakes" and the ordinate theme of "experience of success" in the current sample of parents. As parents in the current study learnt new strategies to better manage their child's behaviour they reflected on their use of past strategies and realised that they may have made mistakes in their previous attempts to deal with problem behaviours. This new awareness of parenting seemed to

provide parents with increased confidence in the implementation of the new strategies thus leading to the "experience of success".

The theme "experience of success" in which parents were observing changes in their child's problem behaviour and/or improvements in their skill development was evident throughout the whole group program. Parents changed and modified their own parenting practices which resulted in greater family harmony and enjoyment. Parents seemed to be taken by surprise at their ability to change their child's behaviour and were delighted when external people in their child's life also noticed the improvements. All parents reported qualitative improvements despite no change being found in some of the family's quantitative results.

These results are further supported by Levac et al.'s (2008) qualitative study which found that parents reported a greater level of awareness and understanding of their parenting practices. The process of change and the experience of success were also evident with parents reporting improvements in their childs behaviour, family relationships, and their own attitudes and confidence. Although these changes provided a renewed sense of enjoyment in the family, parents also acknowledged the long term commitment that parenting requires (Levac et al., 2008).

The theme "its' hard work" was similar to the phase "tempering the dream" as described by Spitzer et al. (1991). The theme "its' hard work" incorporated several sub-ordinate themes including parents doubt themselves, reasons for not completing the assigned homework and strong feelings / resistance. Spitzer and colleagues described this stage primarily as experiencing setbacks and no quick fixes. Parents with a child with a disability tended to doubt their parenting skills especially when their child behaved in a manner that was not

expected. During this stage, time constraints seemed to greatly affect the ability of parents to follow through with particular strategies especially those that required a greater amount of time. In addition, some parents were also reluctant to try new strategies and showed resistance to new ideas offered to them by the therapist.

The case studies provide some valuable information regarding the theme "its' hard work". The qualitative analysis and case studies illustrated that one family considered to have responded to treatment did not experience the theme "its' hard work" or any resistance past session three. This result is consistent with the findings of the Chamberlain et al.'s (1984) study which found resistance in parent training to be greatest during mid-treatment and decreased during the later stages of treatment. Chamberlain and colleagues' findings also showed greater levels of resistance at the end of treatment to be significantly associated with less successful outcomes. This finding is consistent with the results of the second case study in which the theme "its' hard work" was evident at session five and the family was defined as not responding to treatment.

The final stage identified in the Spitzer et al. study was "coping effectively" which is very similar to the theme "learning to cope". The "learning to cope" theme incorporated several sub-ordinate themes including using old strategies, taking care of yourself as a parent, planning for the future, and the use of humour and acceptance. In this stage parents appeared confident at adjusting the skills they had learnt in the group to their individual family lifestyles. Parents seemed to be committed to making changes and acknowledged that change was going to take some time. During this stage parents were able to see the humorous side to their child's behaviour problems and their frustration levels. The issue of support from both informal and formal networks was very strong during this stage. Parents discussed how

attending the group with parents who had similar circumstances and needs was very helpful and a significant source of support. Parents were planning to make adjustments to the existing strategies that they had adopted and were also making plans for the future. Consistently, parents in the Levac et al (2008) study reported feeling a sense of loss at the completion of the parent group due to relationships and supports that they had experienced during the group sessions.

8.5.1 Summary

In conclusion, the results show that parents of children with disabilities attending group-based parent training, experience a number of processes throughout treatment that can be captured by the themes; advocating for child's behaviour, dealing with others' reactions, need for change, its' hard work, learning to cope, and the experience of success. The case studies revealed that different families changed at different rates throughout the group sessions, especially in relation to the areas of "its' hard work" and "learning to cope". It was evident from the results that parents with a child with a disability cope with behaviour problems in their children by adopting various strategies including using old strategies, taking care of themselves, planning for the future, finding humour and finally accepting that change was going to take time. Difficulties for parents attending group based parent training included being unsure of themselves and doubting their parenting skills. Many parents also expressed their difficulties in relation to juggling their family's commitments and not having the time to complete the assigned homework. Resistance and strong feelings towards the therapist or towards the new strategies was also noticed as a difficulty for some parents. Despite these difficulties most parents responded to the group sessions in a non-resistant manner and participated consistently throughout the group process.

CHAPTER NINE

9.1 General Discussion and Conclusions

This research project investigated the impact of therapy processes on outcomes for parents with a child with a disability attending group-based parent training. It involved three studies. The two broad aims of the project were to 1) To investigate the impact of within and between session therapy process variables (attendance, homework compliance, therapeutic alliance, client satisfaction, and parent verbalisations) on treatment outcomes for parents with a child with a disability and 2) To understand the ways parents with a child with a disability behave within group sessions and respond to group-based parenting programs.

9.2 Key Findings

Parents with a child with a disability attending group-based parent training typically interacted in a responsive non-resistant manner. Homework completion and the relationship between each parent and the therapist were important predictors of treatment outcomes, especially parental anxiety and depression and child behaviour problems. Qualitative data based on parents verbalisations during the parent training groups revealed that parents coped with child behaviour problems by adopting a range of strategies including; using old strategies, taking care of themselves, planning for the future, finding humour and accepting that change was going to take time. Difficulties for parents attending the group-based parent training were also revealed in the qualitative data and included; time constraints, feelings of uncertainty and some resistance towards new parenting strategies. Parental expression of resistance across therapy sessions was found to be associated with reductions in parental

depression at post-test, indicating that the opportunity to voice their resistance and have it dealt with was beneficial for their own mental health. Parent resistant and non-resistant verbalisations in combination were found to be associated with increased parental anxiety at post-test. While these findings appear counterintuitive, increases in anxiety were within the normal range indicating that parents were activated by discussing their concerns and successes in the group sessions, rather than being stressed or worried by the experience. In the homework review segments, many parents expressed qualitative improvements in their child's behaviour and success with the new parenting strategies. In addition, the majority of families were satisfied with the group-based parent training program.

The parent-therapist alliance was found to be important in predicting reliable improvements in both child behaviour problems and parental anxiety symptomatology at post-test. In particular, the *goal* sub-scale of the Working Alliance Inventory, which assesses the mutual goals and anticipated treatment outcomes between the parent and therapist, was associated with an increased likelihood of reliable improvement in child behaviour problems at post-test. This indicates that the more aligned the goals are between the parent and therapist the greater the likelihood of predicting improvements in child behaviour problems. These findings are in accord with past research examining families of typically developing children (Karver et al., 2005; Kazdin et al., 2006). Previous research on child behaviour problems has found links between parent-therapist alliance ratings and therapeutic change. A recent meta-analysis examining therapeutic relationship variables in youth and family therapy found a small to moderate relationship between treatment outcomes and the parent-therapist alliance rating (Karver, Handelsman, Fields, & Bickman, 2006). Similarly, Kazdin et al. (2006) found stronger parent-therapist alliance ratings to be associated with more reductions in child deviant behaviour and greater improvements in child controlling behaviour. McLeod and

Weisz (2005) also found child symptomatology outcomes to be associated with a stronger parent-therapist alliance rating.

The strength of the parent-therapist alliance was also significantly associated with lower levels of parental anxiety. To date no research has examined the association between parent-therapist alliance ratings and parental adjustment variables. Results from several studies have shown strong parent-therapist alliance ratings to be associated with parenting outcomes such as improved parenting practices yet these studies have not examined parental adjustment measures (Kazdin et al., 2006; Kazdin & Whitley, 2006). However, research studies examining adult therapeutic alliance have shown a moderate association between alliance and treatment outcomes (Horvath & Symonds, 1991; Martin et al., 2000). In this study, a positive alliance between the parent and the therapist impacted significantly on how parents felt about themselves and their parenting role and this was associated with lower levels of parental anxiety after treatment.

A significant positive association was found between the combination of resistant and non-resistant parent verbalisations and parental anxiety at post-test. The combination of resistant and non-resistant utterances and their association with higher but normal levels of parental anxiety following the completion of the program indicates that parents who voiced their difficulties and their successes were more activated through the process of group-based parent training sessions. The post-test levels of parental anxiety reflected a healthy level of arousal, where parents who verbally participated in the group sessions gained a greater level of support and feedback from the group leader, which in turn may fostered a stronger parent-therapist alliance and more agreement on therapy goals. Parent resistant verbalisations were also significantly associated with reductions in parental depression levels at post-test. Parents

who were able to share their difficulties, explore, challenge and question the strategies in the program seemed to have a greater sense of hope and lower levels of depression at post-test.

Another key finding was that homework compliance at session three increased the likelihood of reliable improvement in parental depression at post-test. This finding accords with Study three's theme "its' hard work". Reasons for not completing the assigned homework is a sub-ordinate theme of the theme "its' hard work". Providing excuses or reasons for not completing homework seemed to be associated with a poorer treatment outcome which is illustrated in the case studies. This finding seems to be in contrast to the results from study two, where parent resistant verbalisations during the homework review segment were associated with reductions in parental depression at post-test. However, it is possible that parents who felt more comfortable about voicing their resistance were more engaged in the therapy process and felt more hopeful and less depressed at post-test.

These results are partially consistent with the findings found in Baydar et al. (2003) and Nye et al. (1995) studies. Both studies examined the impact of program engagement on treatment outcomes. Program engagement incorporated measures of homework completion, attendance, parent-therapist cohesion, and parent involvement within therapy. Results from both studies showed that greater parental engagement was associated with greater improvements in both child and parent treatment outcomes. Similarly, the parents in Study 2 who voiced their resistance and engaged with their therapists were more likely to report lower levels of depression at post-test. Parents who felt comfortable voicing their frustrations, struggles and difficulties could be seen as more engaged and involved in the group process thus leading to better treatment outcomes.

The key findings that parent-therapist alliance ratings and homework compliance were predictive of treatment outcomes accords with the conceptual model of treatment participation proposed by Littell et al. (2001) which is outlined earlier in the literature review. Littell et al.'s (2001) model of treatment participation suggests that the alliance formation between the client and the therapist impacts on treatment participation, and thus in turn, impacts on treatment outcomes. Homework compliance is an integral component of treatment participation, and thus in turn, could impact on treatment outcomes. Karver and colleagues (2005) include homework and in-session assignments in their definition of parental participation. Therefore the findings from this study further support this conceptual framework for understanding treatment participation.

Study 3 shows that parents of children with disabilities attending group-based parent training, experience a number of processes throughout treatment that can be captured by their verbalisations, and organised into common themes which include; advocating for child's behaviour, dealing with others' reactions, the need for change, its' hard work, learning to cope, and the experience of success. This qualitative study begins to answer some of the questions regarding parent training proposed by Spitzer et al. (1991), including whether the process model of parent participation identified in their study would be confirmed with a different parent training intervention and a different population of families. The process model indentified by Spitzer et al. involved parents learning to more effectively manage the burdens and strains that having a child with conduct disorder can create by slowly increasing their skills, knowledge and confidence in parenting. The process model of parent participation involved five distinct phases including acknowledging the family's problem, alternating despair and hope, tempering the dream, making the shoe fit, and coping effectively (Spitzer et al. 1991).

Interestingly, families with a child with a disability who displayed challenging behaviour problems experienced many of the same feelings and experiences as families of typically developing children with conduct problems, thus supporting Spitzer et al.'s process model. The key difference between the Spitzer et al. (1991) study and the current study is linked to the phase "acknowledging the family's problem". Parents in the current study did not express strong feelings of anger, fear of loss of control or depression at the beginning of the program. This difference may be related to the different samples used in the Spitzer et al.'s study and the length of the intervention. Spitzer et al.'s sample consisted of parents of young typically developing children with conduct disorder, while the current study investigated parents of children with intellectual and developmental problems. All of the children in the current study showed challenging behaviour, but not all children met criteria for conduct disorder. In addition, the Stepping Stones Triple P intervention was shorter than other interventions. In the current study, only session 2, 3, 4 and 5 were analysed qualitatively while responses of the families participating in the Spitzer et al. study were analysed for the entire 10 – 12 group sessions, the intake sessions and follow up consultations. It might be that this strong expression of feelings is more likely to occur during the intake interview or the follow up consultations.

The studies completed for this thesis also provide preliminary evidence for the question asked by Kazdin and Nock (2003) which states "how or why even our most effective interventions produce change" (p. 1127). Although this study provides no definitive cause and effect conclusions, the results suggest that improvements in parent and child outcomes following the completion of the Stepping Stones program are associated with homework completion, the therapeutic alliance, and the active participation of parents in sessions. Promoting strategies to increase homework completion and ways to improve therapeutic alliance are likely to lead to

better treatment outcomes for families of children with a disability (Kazdin, 2000). Encouraging parents to express their thoughts, ideas and concerns within the therapy sessions is also likely to lead to beneficial outcomes, as study 2 showed that expressing resistance was associated with lower parental depression at the end of parent training. However, this research failed to show any association between client satisfaction, group attendance, and parent or child treatment outcomes.

Understanding how families engage with services and the processes families go through in attending intervention programs are questions posed in the literature (Eaton-Hoagwood, 2005; Quinn et al., 2007). The results of the third qualitative study provide a rich source of information on how families with a child with a disability participate and change during group-based parent training. The themes derived from the therapy transcripts indicated different stages whereby families experience success and times when families get stuck and find it difficult to fully participate in a group-based parent training program. For example some parents expressed beliefs that their child was "going through a phase" or found it hard to deal with external people's comments about their child's behaviour. These results are consistent with findings from studies exploring parental participation in parent training with typically developing conduct disordered children (Levac et al., 2008; Spitzer et al., 1991). All parents expressed an enhanced sense of confidence in their parenting role, valued the support from other group members and were able to observe positive changes in their child and family despite still experiencing several setbacks throughout the intervention process.

9.3 Implications for Therapists Working in a Group Setting

The link found between the working alliance and treatment outcomes highlights the importance of the parent-therapist relationship as an important agent of change and this has several implications for therapists. Therapists who are able to develop and maintain strong working relationships with families are more likely to encourage better parent and child treatment outcomes. Study 1 showed that this is particularly relevant to the area of goal setting. If parents and therapists are aligned in terms of family goals for therapy, better child outcomes are more likely to occur. Novice therapists need to be mindful to focus on the process of therapy and developing goals with parents, while also maintaining the intergrity of the program's content. Therapists may need to seek additional information and supervision regarding strategies to increase the strength of the working relationship with some of the more difficult to reach families.

The importance of homework compliance at session three also has implications for therapists facilitating the Group Stepping Stones program. Homework compliance at session three was found to be linked to improvements in parental depression. Therefore it is important for therapists to ensure that adequate time is given to the review of homework in session three. It is recommended that every parent in the group has an opportunity to discuss and problem solve their homework in this session. Depending on group size, this may require strict time constraints on the amount of verbal participation allowed during other segments. Although many therapists pre-empt time issues with all participating families as part of the group process, this would be particularly important in session three.

Providing adequate time for families to express their resistant and non-resistant concerns is another important issue for therapists. Parent resistant verbalisations were found to be significantly associated with reductions in parental depression at post-test. Allowing parents' time to discuss their concerns regarding change, new parenting skills, and how they will adapt the new strategies to their individual family circumstances is likely to enhance parents' engagement and reduce their feelings of hopelessness. Therapists should be available to listen and explore in a non-judgemental way the difficulties and objections that families may bring to the group sessions. Arousing parents to think and actively participate should provide therapists with opportunities to discuss and refine parenting strategies to suit the needs of each individual family.

An ordinate theme in Study three was "dealing with others' reactions". Many parents reported frustration and annoyance at having to deal with family, friends and external people's reactions to their child's behaviour. It would be useful for therapists to encourage parents in the group to show their partner, extended family, friends and school staff their workbooks as a way of creating some form of consistent parenting. Offering parents the opportunity to loan the video materials may also be a useful option for gaining support from the extended family or well meaning family friends. During the planning and preparing stage, therapists may also need to consider offering groups at times which may be convenient to other family members such as fathers to ensure that family members and friends have the greatest opportunity to participate.

Another implication for therapists is the issue of social support. Parents in study three reported the benefits associated with the informal support and commonalities experienced with other members in the group. It would be important for therapists to provide opportunities

and allow time within group sessions for parents to develop informal support networks with other parents within the group. Providing parents with information about additional support opportunities such parent support groups, parent resource centres and parent newsletters would also be an important consideration.

The case studies also revealed that it may be important to pay close attention to parents who are saying that parenting is "hard work" at session three. These verbalisations may act as an indicator that these parents need more attention within the session or individually in order to implement the parenting strategies successfully and experience long lasting improvements. However, caution needs to be applied to these results given that they are based on a small sample of participants.

9.4 Strengths and Limitations of the Present Research

This is one of the first studies to examine the impact of therapy process on both child and parent treatment outcomes for parents with a child with an intellectual disability attending group-based behavioural family intervention. This research was conducted in a real world setting as part of the normal service delivery of the Western Australian Disability Services Commission and therefore the results have generalisability and ecological validity for other disability service providers. This study examines the processes and mechanisms of change in order to provide information to help therapists create a better fit between treatment and participant needs (Quinn et al., 2007). Therefore this study provides a unique contribution to the parent training literature which extents the traditional efficacy studies.

Examination of parent-therapist interactions on a moment-to-moment basis across time is a significant strength of this study. This allowed a comprehensive analysis of every sentence uttered by parents during the homework segments of the program. The therapy process codes were internally reliable and evidenced robust inter-rater reliability, which provides important psychometric information to support the reliability and validity of this instrument. Observations provide a real life account of therapy process and typically capture more detail than what can be obtained from the completion of a questionnaire. In addition, tracking parent-therapist communication over time allowed insight into how parents responded to the group intervention and how they changed over time.

The inclusion of the qualitative analysis of the therapy observational data provided a rich and detailed account of how parents experienced and changed over the group sessions on a moment-to-moment basis. Understanding these phases and the changes in process over time provided insight into the important stages that parents go through in attending parent training groups. These stages are similar to those proposed by Spitzer et al. (1991) for parent training with typically developing children. The outcomes of the stages are illustrated in the two case studies which highlight both successful and less successful outcomes.

The principles and training methods adopted by the Stepping Stones Program are based on the broader Triple P Program which has been extensively studied over the last 25 years. Both programs have a strong theoretical and empirical foundation. Furthermore, all the Stepping Stones Triple P group sessions were delivered by psychologists who were accredited facilitators who regularly participated in individual and peer supervision. All group facilitators completed content checklists to ensure the integrity of the program was maintained. These practices ensured that the integrity of the intervention was maintained and

that parents received a high quality intervention. In addition, the questionnaires used in this study, with the exception of the Homework Rating Scale, had excellent psychometric properties and have been used many times in evaluations of behavioural family interventions and/or the Stepping Stones Triple P program to ensure the reliability of the outcomes was maintained.

Despite the lower than anticipated participant numbers, the attrition rate (15.19%) for this study was lower than similar studies reported in the literature. Reyno and McGrath (2006) report studies which have dropout rates between 28 – 50%. Similarly, Forehand et al. (1983) examined 22 parent training studies and found an average attrition rate of 28%. Therefore although the total numbers were lower than the original power calculations the majority of parents who chose to participate completed the entire program. This reflects the high level of satisfaction reported by parents, and the strength of the working alliance between parents and therapists in this study.

Another, strength of this study is the use of reliable change scores and the examination of clinically significant change. Using reliable change scores allowed the researcher to discriminate between those participants whose change was due to error measurement and those whose pre-post change was real. The clinically significant change provided concrete evidence on how many participants had moved from a clinical range of symptoms to a healthy range following the intervention. This analysis provides the opportunity for clearer comparisons to be made across studies.

Despite these strengths, the current research did not include data from both parents, the vast majority (89.9%) of parents participating in these studies were mothers, with only 2.5% of

fathers and 7.6% of the sample being other relatives. Although some fathers regularly attended the group sessions, only the primary caregiver results, mostly mothers, were included in the analysis to avoid inter-dependency issues. It would be valuable to attract a larger number of fathers to attend parent training to determine whether fathers engage and respond to parent training in similar ways to mothers. In the current study, families with significant adversity and stress were excluded from the study. This criteria was specified by the Disability Services Commission, as their intervention protocols indicated that families with significant stress and adversity should be treated individually. This exclusion criteria reduces the generalisability of the current findings. Hence, it would be valuable to replicate this group-based intervention study with the inclusion of families with significant adversity and stress. However, it is important to note that over half of the parents participating in this study had a self reported family history of mental illness.

A lower than expected participation rate reduced the power of this study to detect effects. Insufficient participant numbers are not uncommon in this field of research (Quinn et al., 2007). However, important findings may go undetected due to the lack of statistical power. The power for the logistical regressions was below the requirement of 0.8 recommended for the behavioral sciences (Cohen, 1988; Erdfelder et al., 1996), thus increasing the likelihood of Type II errors. Despite considerable effort by both the researcher and staff from Disability Services Commission, larger numbers could not be obtained. Many families who responded to advertisements did not meet intellectual disability registration requirements or were ineligible for groups. In addition, some families were unable to commit sufficient time to attend the program.

This study did not include a control condition. Although the aims of this study did not include examining the efficacy of this program, employing a control condition would have provided more robust findings. Having a control group would have allowed the researcher to attribute the treatment outcomes more reliability to the intervention. Without a control group it is impossible to say that the treatment outcomes were linked solely to the intervention. Other contextual variables may have caused the program outcomes. Replication of this study is warranted with a larger sample size and the inclusion of a control condition.

Another limitation of this study was the possibility of a reactivity effect that may have occurred when participants completed the Homework Rating Scale. It is possible that simply getting parents to fill out the homework rating scale each week influenced their responses. Participants may have been more motivated to complete at least some of their homework as their homework was being examined on a weekly basis. Future research should address this issue by obtaining ratings of participants' homework completion from more than one source. It would be interesting to obtain a rating of homework completion from the perspective of both the participant and the therapist each week. This would reduce the difficulty of reactivity and would provide a more robust measure of homework completion.

The issue of multi-informant assessments is also highlighted as a limitation with the ratings of the therapeutic alliance. The therapeutic alliance in this study was only rated by the parents. Horvath and Symonds (1991) found that treatment outcomes were more strongly predicted by participant ratings of the therapeutic alliance compared to both therapist and independent observer ratings. However, it would have been beneficial to have an alliance rating by a second source. A therapist rating of the parent-therapist alliance may have provided more insight into the bidirectional interactional relationships. Multiple assessments often provide a

richer, more reliable and valid source of information, when measuring interactional variables. In the current study, a therapist rating of therapeutic alliance was not included as there would have been significant dependencies in the data, due to one therapist rating different participants from multiple groups.

Kazdin (2006) argues that in order to understand mechanisms of change, researchers should obtain multiple assessments throughout the treatment process. In order to argue that a variable is a mechanism of change, a time line between the mechanism and the outcome must be demonstrated. Although this would be beneficial in understanding the relationship between the proposed mediators and the outcome, in a practical sense increasing the battery of assessments for families may have hindered their participation and engagement levels. Future research needs to weigh up the costs and benefits of increasing the battery of assessments for families who are already facing a significant amount of stress and time constraints.

The failure to measure parent discipline practices and skills is a further limitation of this study. One of the main aims of the Stepping Stones program is to reduce coercive and punitive parenting practices (Sanders, Mazzucchelli et al., 2004b). It is likely that therapy process variables impact on parenting skills which in turn impact on child behaviour problems. Understanding how therapy process variables relate to parenting practices may also highlight opportunities to strengthen child behaviour outcomes. Future research should investigate the impact of therapy process and engagement variables on parent discipline practices and skill levels with parents attending a group-based behavioural family intervention.

Only the homework review segments of sessions 2, 3, 4 and 5 were video-taped and transcribed verbatim, because these sections presented the richest source of parent-therapist interaction. Although these segments of the SSTP program provide the most representative sample of interaction, it is likely that additional therapy process information was lost during the parts of the group session which were not video-taped. It would be valuable to examine every stage of the group process from the intake telephone interview to the final follow up session. Families may experience extra difficulties or gain new supports which were not captured in the current sample of parent-therapist interactions.

The time intensive nature associated with using the Therapy Process Code is another limitation. While the Therapy Process Code did capture a large range of client verbalisations, the full range of emotions and experiences that families with a child with a disability encounter during parent training were not captured. Furthermore, many of the resistant codes in the Therapy Process Code were not evident in the interactions that were video taped, thus reducing the possibility of examining different resistant codes and the link with treatment outcomes. Analysing the frequency of how codes changed across time was difficult due to the potential violation of statistical assumptions. Hence quantitative and qualitative analyses were conducted on the observational data.

9.5 Directions for Future Research

Given that therapeutic alliance and homework compliance were found to be associated with treatment outcomes, it would be important for future researchers and clinicians to investigate ways to increase homework completion and enhance therapeutic alliance for families with a child with a disability. This might include additional training for clinicians in how to handle

ruptures in the therapeutic alliance and strategies to improve their alliance ratings. Training programs for clinicians to increase the strength of their alliance are available and may enhance the efficacy of parent training programs for families with a child with a disability (Baldwin, Wampold, & Imel, 2007). Research examining homework completion should focus on minimising the difficulty level, giving reminders, providing reinforcement for clients, and examining the rationale clinicians present for the completion of homework (Kazantzis et al., 2004).

Despite the significant results in this study regarding the associations between homework completion, therapeutic alliance, parent verbalisations and treatment outcomes, research needs to continue to explore and better understand what other mechanisms of therapy can create positive change for families attending group-based parent training. This study did not investigate whether parents' disciplinary style changed as a result of the intervention, nor did it investigate whether this impacted on child behaviour problems. Also, having a greater understanding of parent attitudes and beliefs and therapists' behaviours within session may indicate more specific intervention processes to target. Measuring variables at multiple time points using a multi-modal perspective would also make a valuable contribution to future research.

Other variables of interest in relation to the efficacy and therapeutic boundaries of group-based parent training for families of children with disabilities, may include the impact of group size and composition on the experience of participants. It is well known that parents greatly appreciate the sense of belonging and understanding received from other members in the group (Levac et al., 2008; Spitzer et al., 1991). However, understanding the impact that other members in the group have on treatment outcomes is still yet to be explored with

families with a child with a disability. Furthermore, given the links found between parental cognitions and the uptake and participation of families in treatment (Morrissey-Kane & Prinz, 1999), it would also be valuable to examine these constructs with families with a child with a disability. Having a clearer understanding about parental intentions, expectations and cognitions may provide new insight into the sample of families that fail to complete treatment. In order to better understand parental engagement it would be worthwhile to follow up the families that failed to complete the group sessions. The use of a questionnaire to ascertain the reasons for dropout may provide further insight into family participation and ways to increase engagement for these difficult to reach families.

Focusing more exclusively on the behaviours of the group facilitators would also provide very useful information. Understanding how the personal attributes and techniques of the therapist (e.g. empathic understanding, confidence, respect, flexibility, trustworthiness) impact on treatment outcomes would provide opportunities for further clinical training and supervision. This information may also allow modifications to be made to intervention manuals and the recommended training levels required to facilitate programs.

In future studies, the process of therapy would also be better understood if all of the group sessions in their entirety were vide-taped and transcribed verbatim. Inclusion of the telephone follow-ups would also be beneficial in understanding how parents cope at home without the support of the group facilitator or other members in the group. A follow up session or phone call analysed qualitatively may also provide additional themes or phases that parents go through after their attendance at group sessions has finished. This may further highlight the way families with a child with a disability cope and or struggle with child behaviour problems.

Future studies need to improve measures used to assess the different facets of parental engagement and participation. For example, studies should continue to build upon the emerging reliability and validity literature for the Homework Rating Scale. This measure is short, easy to administer and appears to be user-friendly for a variety of treatment settings. Further studies which continue to investigate the psychometric properties will enhance the credibility of this measure.

Finally, replication of this study is warranted with a larger sample size which includes other family members beside mothers. Future studies need to examine the barriers to participation for fathers and attempt to offer alternatives to increase participation numbers. Families with significant adversity and stress should also be included. Not only will this increase the generalisability of the results to the wider community but may also provide opportunities to explore sex differences between mothers and fathers in the engagement of parent training. A larger sample size may also allow comparisons to be made with different developmental disabilities. Longer term follow up's of both parent and child outcomes are also warranted.

9.6 General Conclusion

The current study has made a unique and important contribution to the understanding of process issues and the impact on outcomes for families with a child with a disability attending group-based parent training. The importance of parental homework completion, parental participation and the parent-therapist alliance, especially the congruence between therapists and parents on therapeutic goals were important for treatment outcomes, especially parent mental health and child behaviour problems. These findings provide some insight into what factors are associated with therapeutic change for families participating in a behavioural

family intervention. This information is important when trying to understand why some families may do better than others. The parent-therapist alliance is an essential agent of change and has implications for therapists working in a group setting. Future research needs to explore strategies that will promote increased homework completion and stronger parent-therapist relationships.

The examination of the way families respond to and participate in group-based parent training on a moment-to-moment basis was particularly informative. Independent observational data of parent verbalizations across time indicated a gradual process of improvement and hope for families, as well as stages where families can get stuck and not experience the full range of successful outcomes for their children or themselves. Difficulties such as coping with other people's reactions, resistance to new parenting strategies, and juggling many different commitments were commonly found amongst this population of families. Parents learned to cope by using old strategies, taking care of themselves as a parent, planning for the future, and by using humour and accepting that change was going to take time. It was interesting to find that families with a child with a disability and comorbid challenging behaviour problems experience parent training programs in a similar way to families of conduct disordered children (Levac et al., 2008; Spitzer et al., 1991). Analysis of parent verbalizations across sessions indicated that parents were mostly non-resistant in their interaction with therapists and supportive of other group members. Overall, these results suggest that the group Stepping Stones Triple P program is highly acceptable to families of children with developmental disabilities, including autism.

Despite the complexities found in studying the process of therapy, the importance of this research far outweighs the limitations and difficulties found within this area. Future research

should attempt to include process variables, allowing programs to be expanded and refined to better fit the needs of difficult to reach families. Meeting the needs of a greater number of families is likely to have a positive effect on the individual child, family system and the wider community.

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APPENDICES

Appendix A

Content Checklists

Appendix B

Attendance Checklist

Appendix C

PSYCHOLOGIST INFORMATION PACK

C.1 Psychologist Information Form

C.2 Protocol for Recruitment and Data Collection

C.3 Protocol for Screening Families on the Telephone

C.4 Summary Table of Therapy Process Codes

C.5 Homework Rating Scale

C.6 Working Alliance Inventory

C.1 Psychologist Information Form

Psychologist Information Form- 2005

Stepping Stones Group Project

Therapy Process Variables: How they Predict Parent and Child Treatment Outcomes in a Family Intervention Program designed for Parents of Children with Disabilities and Challenging Behaviour

Dear Psychologist

I am writing to introduce myself and inform you of the up and coming research involving the Stepping-Stones Positive Parenting Program. My name is Nicole Skeats and I am currently a PhD Student in the School of Psychology at Curtin University. Attached to this letter is further information describing the project. This letter is designed to make the project clear to you and highlight any changes that may be occurring throughout the project.

What are the aims of the project?
This study aims to investigate the impact of demographic variables and therapy process variables on therapy outcomes for families of children with disabilities and problem behaviours. The study will determine whether group attendance, homework completion, therapeutic alliance and parental treatment investment are predictive of reductions in child behaviour problems and reductions in parental stress; as well as determining whether therapy process variables predict negative family responses such as premature termination. To date no research has examined the impact of therapy process variables on outcome variables with a population of families of children with disabilities.

What will change for psychologists?
DSC psychologists will continue to implement the Stepping-Stones program to groups of parents with children with disabilities. However, I will be advertising the program, scoring questionnaires, providing summaries of participant results, developing and photocopying assessment booklets and helping in whatever way possible to set up the groups. I am more than happy to do anything that is required to set up for the running of the Stepping Stones Groups so please do not hesitate to ask me.

What will the research involve?
The research evaluation will involve parents completing the battery of questionnaires that are normally distributed to participants completing the Stepping-Stones Program including a demographic questionnaire, Developmental Behaviour Checklist, Depression, Anxiety Stress Scales and the Client Satisfaction Questionnaire. Two additional questionnaires will be included in this study namely a Working Alliance Inventory (36 items) and a Homework Rating Scale (12 items). At session 3 parents will be provided with a Working Alliance Inventory to complete and the Homework Rating Scale will be completed after every session with the exception of session 1.

To further evaluate the engagement level and participation of participants within sessions, groups will be videotaped during sessions 2, 3, 4 and 5. All verbalisations during the homework segment of each session will be coded according to the definitions and classifications outlined in the Therapy Process Code (see attached). Although therapist verbalisations will be coded, results regarding therapists verbalisations will not appear in the final publications as there is too few psychologists to find any reliable and valid results. I will

be attending all groups to set up the video-tape equipment and to collect and hand out questionnaires as required.

The benefits of this research to you and the group

- Greater knowledge of therapy process variables may allow greater participation and recruitment of 'at risk' and hard to reach families.
- Improved social and emotional health of families with children with disabilities and problem behaviours.
- This project may guide the teaching of parent programs to new therapists and group leaders.
- An extra 'pair of hands' to assist you with the setting up of the groups.

The commitment from you as a Stepping Stones facilitator

- Encourage parents to participate in this research
- Provide a small amount of time in sessions for parents to complete the additional questionnaires.

If you wish to discuss any aspect of this research at any time, please feel free to contact me on (H) 9259 1906/ (W) 9266 2465/ 0413 994 592 or alternatively you can email me at n.skeats@curtin.edu.au. I look forward to working with you.

Yours Sincerely

Nicole Skeats
PhD Student
School of Psychology
Curtin University

C.2 Protocol for Recruitment and Data Collection

Protocol for Recruitment and Data Collection – 2005

1. DSC psychologists will conduct screening interviews with all parents referred to the Stepping-Stones Program to ensure that a group format is suitable. Particular emphasise should be given to family adversity and stress, reading competence and the ability of the parent/s to keep to the pace of a group format. Parents who are unsuitable for a group are referred for individual psychological services provided by DSC.
2. The interviewer informs the parent of the research and their requirements/ commitment and gets their verbal consent to participate. In particular parents should be told what the stepping stones positive parenting program involves including that they will be required to complete a battery of questionnaires before starting the group (regarding their child's behaviours, their own stress, and their satisfaction with the service and the working relationship with the therapist) and again at the end of the group. Parents should also be told that the whole group program will be video-taped. (See the Protocol outlining this procedure).
3. Once verbal consent has been obtained a package containing an information sheet, consent form and all pre-test questionnaires will be sent to the family to complete prior to their first Stepping Stones session. Parents should be made aware that they can call Nicole Skeats on 9266 3441 if they have any questions regarding the completion of the questionnaires.
4. Parents will bring along their completed consent form and questionnaires to their first group session. Parents who have not handed their completed forms in will be followed up by Nicole Skeats.
5. At all the first Stepping-Stones group sessions Nicole Skeats will introduce herself and collect all consent forms and place them in the envelope labelled with 'consent forms' and the date.
6. At all Stepping Stones sessions Nicole Skeats will tick off the participants who attend at every session. See the attached attendance checklist. This will allow a record to be kept of the number of sessions and follow up phone calls that each parent is present for.
7. Nicole Skeats will check each assessment booklet to ensure that parents have not missed a page or accidentally missed a questionnaire before they leave the first session. Parents will be reminded that it is difficult to offer clinical services before a complete assessment has been completed.
8. Nicole Skeats will thank parents for participating in this research and remind them that they will be placed into a raffle after completing the post-test measures to win a voucher of their choice, either Myer, Coles, Bunnings vouchers, Zoo passes or movie tickets. Each separate group will be placed into a different raffle so there is a greater chance of winning.
9. Nicole Skeats will be attending each session to ensure that the video attachments have been attached to the video recorder and the room is set up to allow the best possible positioning of all participants in the video camera has occurred. All consenting participants must be visibly seen on the video camera during the homework segment.
10. The camera should record the homework segment of session 2, 3, 4, 5. Unlike previous videos of the Stepping Stones groups, the camera should be directed at the parents and if at all possible the therapist as well. Because the homework segment is an important part of this research, all psychologists should try to illicit individual comments regarding homework from all participants.
11. Before each session Nicole Skeats will clearly label each tape with the session number and the date. Nicole Skeats will then take these videos for coding.
12. At the third SSTG session Nicole Skeats will hand out the Working Alliance Inventory and sealed envelopes to parents to complete. All parents should write their name on the

top of the questionnaire. Parents should be told that only the researchers at Curtin University will see their answers and the therapists will not be allowed to view their individual responses.

13. During the homework segment of session 2, 3, 4, and 5 Nicole Skeats will hand out the Homework Rating Scale to each participant. Again all participants will need to write their name on the questionnaire. This will be collected by Nicole Skeats and placed into envelopes clearly labelled with the session number and date.
14. After every Stepping-Stones Session group facilitators should complete the program integrity checklist which involves ticking off which content areas of the session were covered (See attached). This can then be placed in the envelope labelled "Checklists, facilitator and date". Nicole Skeats will collect these.
15. Once parents have completed the 4 follow up phone calls a package of post-test questionnaires will be sent to the parent/s to complete. Group facilitators should emphasis the importance of completing post-test assessment by informing parents that completing the forms gives them a chance to comment on the program and to see the differences that they have achieved since the first session. Also remind parents of the tonken of appreciation that they might win for completing the post-test assessments. Also parents should be told that they can contact Nicole Skeats on 9266 3441 if they have any questions regarding the completion of the questionnaires.
16. Group facilitators should tell parents that Nicole Skeats can go out to the family home and assist with questionnaire completion as required. Parents can ring Nicole Skeats directly on 9266 3441 to make a time which is convenient.
17. Parents should also be told that they will be informed of the results of the research when it is completed.

C.3 Protocol for Screening Families on the Telephone

Recruitment Protocol for Screening Families on the Telephone

Step 1: Screen parents as per normal for the Stepping-Stones program eg. suitability for a group, stress levels, parental disability etc.

Step 2: Inform parents that the Stepping-Stones Program is currently being run as part of a larger research project with both Disability Service Commission and Curtin University of Technology.

Step 3:

- **Tell parents what the project is about:** The research is trying to find out why some families experience a positive change (reduced parental stress, less behaviour problems in children etc) following the completion of parenting programs and while others do not.
- **Tell parents what they will have to do if they choose to participate:** Attend the stepping stones program which involves five 2 hour sessions followed by four 15 minute follow up phone calls and complete several questionnaires during the program. The questionnaires focus on topics such as your child's emotional and behavioural health, depression, anxiety and stress in adults, the relationship between you and the psychologist and how satisfied you were with the program. To gain a snapshot of what occurs during the program all participants and psychologists will be videotaped as a group during the homework segment of each session
- **Tell parents that all information will be completely confidential**
- All information will remain the property of DSC and the researchers at Curtin University and no other outside agency can view this information without their written consent
- **Inform parents of whats in it for them:** Receive a parenting program run by DSC psychologists free of charge and a workbook to take home outlining all the information covered in sessions, opportunity to liase with other families who can provide a great source of knowledge and support as they have often been in the same situation, after completing the post-test questionnaires packs they will go into one of 15 draws for the chance to win a vouchers of their choice valued at $40 eg, Myer, Coles, Zoo Passes, Bunnings, Movie Tickets.

Step 4: Ask parents if they would like to be part of this exciting opportunity to participate in the Stepping-Stones Program as part of the current research.

Step 5: Get parents verbal consent to participate in the program and tell them that additional information regarding the Stepping Stones program and the current research will be sent to them in the mail.

Step 6: Ensure you have the correct mailing address for the family

Step 7: Send out pre-test questionnaire packs which should include

- Consent form
- Information sheet
- All pre-test questionnaires

C.4 Summary Table of Therapy Process Codes

Note. Adapted from Chamberlain, P., Davis, J. P., Forgatch, M. S., Frey, J., Patterson, G. R., Ray, J., et al. (1986). *The Therapy Process Code: A multidimensional system for observing therapist and client interaction*, Eugene, Oregon: Oregon Social Learning Centre.

Table C1
Summary Table of Therapy Process Codes

Therapist Codes	***Description***
Support / Empathise (S/E)	Any positive response toward the client that shows humour, understanding and / or encouragement
Teach (T)	Instruction, telling clients what to do and how to do it. This is particularly used for reviewing assignments and questions related to Assignments
Question / Information Seek (Q/I)	Inquiries requiring a response. Interrogative words are a primary cue for this code. Includes clarification comments that lead the client to provide more information
Structure (S)	Directing the conversation or setting ground rules for how the session or interaction will proceed. Also includes directives that change the Direction of the conversation or the therapy
Disagree/Confront/ Challenge (DCC)	Behaviours that push the client, such as the following: disagreement, disapproval, or negative, sarcastic or hostile remarks and challenges. Can also include neutral statements which indicate disagreement
Interpret/Reframe (I/R)	Therapists speculate about or state the meaning of something, make a prediction or alter the meaning of what someone has said. Metaphors and analogies are always coded in this category.
Talk (Tk)	General code for all the verbalisations and behaviours that can not be coded within another category
Facilitate (F)	When the therapist is basically listening to the client, but making short utterances to indicate s/he is paying attention and that the other person should keep talking

Client Codes	*Description*
Challenge/Disagree C/D)	Client remarks indicating dissatisfaction with the therapy and / or the therapist and / or disagreement with the therapist
Hopeless/Blaming (H/B)	Remarks of an "I can't" nature. There are three basic Components including hopeless, blaming and complaining
Defend Self or Others (DD)	Defending, justifying, making excuses, pardoning another, or oneself whether or not the person is there or not
Own Agenda/ Sidetrack (AS)	Own agenda responses indicate that the client wants to discuss an issue different from the current direction of the therapist. May include a response from the client that is completely off the topic of conversation or that the client won't let the therapist get word in.
Answer for Someone Else (A)	Answering a direct question by the therapist for another client.
No Answer/No Response	Withholding information by not responding to a question for two seconds or more. May also include not answering or avoiding answering a direct question. In response to a direct question, the client is evasive, nondirective or leaves the statement open ended
Disaqualify Previous Statement (D/S)	Involves statements which contradict an earlier statement made by the client. Not immediate or trivial correction of facts. Also includes extreme statements about death and supernatural powers
Verbal Attacks on Other Present Family Members (V/A)	Unsolicited negative or critical comments or complaints made by one family member to another. Includes negative physical interactions between clients such as hitting and kicking
Non-Resistant (N/A)	All responses of a non-resistant nature made by the client. This code includes head nods and shakes made by the client in

	Response to a therapist question
Unintelligible Verbalisations (UV)	All unintelligible verbalisations are coded in this category

C.5 Homework Rating Scale

Note. Available in Kazantzis, N., Deane, F. P., & Ronan, K. R. (2004). Assessing compliance with homework assignments: Review and recommendations for clinical practice. *Journal of Clinical Psychology, 60*(6), 627-641.

C.6 Working Alliance Inventory

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Appendix D

D.1 Stepping Stones Triple-P Pamphlet

D.2 Letter designed to accompany bundles of Stepping Stones Pamphlets

D.1 Stepping Stones Triple-P Pamphlet

D.2 Letter designed to accompany bundles of Stepping Stones Pamphlets

Curtin
University of Technology

Dear

We are writing to inform you of new developments in the Stepping-Stones: Positive Parenting Program and the exciting opportunity that exists for parents. The Stepping Stones program is a parent training program designed specifically for parents of children with disabilities. The aim of the program is to reduce childhood behaviour problems, increase family communication skills and teach parents ways to manage the stresses of being a parent. At present the Stepping-Stones: Positive Parenting Program is being coordinated by Disability Service Commission and Curtin University of Technology. Currently we are trying to learn more about why some parents/families experience more positive change following parent training programs than others.

Therefore we are offering parents/caregivers of children 2 –12 years old with intellectual disabilities or developmental delays the exciting opportunity to be part of the Stepping-Stones Group Research Project. Groups are free of charge and parents are invited to attend five 2 hour sessions followed by four 15 minute follow up phone calls. By attending the group parents may experience reductions in their child's behaviour problems and improvements in their own parenting skills and confidence levels. In addition all parents will also go in the draw to win a $40.00 voucher of their choice.

Attached to this letter are a number of flyers advertising the Stepping-Stones: Positive Parenting Program. It would be great if you could display the attached pamphlets in a prominent position in your school/agency or invite parents who fit these criteria to enrol in a Stepping Stones Program. If you wish to discuss the program or have any queries from parents I would be more than happy to assist.

Nicole Skeats
Clinical Psychology Masters/PhD Student
Curtin University
9266 3441/ 0413 994 592

Appendix E

STEPPING STONES TRIPLE-P ARTICLE

Super Nanny will be out of work as parents of children with disabilities follow lead of Australian research and get 'positive' with Stepping Stones

Parenting can be extremely rewarding, and enjoyable. It can also be frustrating, tiring and demanding. Many families show outstanding coping skills and accommodate the extra demands of having a child with a disability. However, difficult times are still sometimes experienced.

Like all children, those with disabilities can develop difficult problems such as temper tantrums, destructiveness or non-compliance. Problem behaviours can become worse as children grow older and often are more difficult to change. This is when parents might wish they had the assistance of an expert to take charge. However, many Australian families have learned that a well-researched program exists that can teach them the skills they need to manage behaviour problems calmly and constructively. The Stepping Stones: Positive Parenting Program (SSTP) gives parents ideas about how to prevent difficulties by encouraging positive behaviour and teaching children the skills they need to develop independence.

SSTP is designed specifically for families with children with disabilities. This program is adapted from the internationally renowned Triple P-Positive Parenting Program developed in partnership between the Disability Services Commission and the University of Queensland with Professor Matt Sanders. The program has been shown to have positive effects for children and their families through research with Associate Professor Clare Roberts, Curtin University of Technology, WA. A new research project with A/Prof Roberts and Nicole Skeats aims to develop an understanding of why some parents/families experience more positive change following parenting programs than others.

The Commission runs Stepping Stones groups each school term in a range of locations for parents/caregivers of children 2 –12 years who have a developmental disability or delay. Many parents have already attended and report huge changes in their children behaviour and skills. SSTP groups include five 2½-hours weekly sessions followed by three 15 minute follow up phone calls and a final review session. The focus of sessions is on teaching parents and carers practical, easy-to-use skills that can be a part of everyday family life.

Being part of a group can offer many advantages for families:

1. The group is *free of charge* and all participants will get a workbook that outlines all the information covered in the sessions.
2. Many children show improvements in their behaviour and parents often say they feel more confident in their parenting role and less stressed after completing the group.
3. All parents go in the draw to win a $40.00 voucher of their choice.
4. Being part of a group also provides the opportunity to hear from people who are in similar situations who might also have unique strategies on how to cope with the more difficult times in family life.

So if you are the parent or caregiver of a child aged 2-12 years old with a developmental disability or delay and you would like to join a SSTP group or know someone who may be interested in attending we would be happy to hear from you. You can call Nicole Skeats on 9266 3441/ 0413 994 592 or alternatively you can contact Disability Service Commission (North Region) 9301 3800 or (South Region) 9329 2300 or your Local Area Coordinator to find out more.

Stop daydreaming about the Super Nanny coming to your home. Join a Stepping Stones group today; it's only a stones thrown away…….

Appendix F

EXAMPLES OF STANDARD SCREENING FORMS

Appendix G

PRE-GROUP INFORMATION PACK

G.1 Introduction Letter

G.2 Information Sheet

G.3 Pre-group Questionnaires

G.3.1 Developmental Behaviour Checklist

G.3.2 Depression Anxiety Stress Scale

G.1 Introduction Letter

<Date>
<Participant>
<Address>

Dear <Participant>

Thank you for enrolling in Group Stepping Stones Triple P. Your family has been chosen to participate in the <day> group commencing the <date> at <time>. At present the Stepping-Stones Program is being run as part of a larger research project along side both Disability Service Commission and Curtin University of Technology. The aim of the research is to find out why some families experience positive change following the completion of parenting programs and why others do not. The person you spoke to on the phone would have informed you of this research and asked whether you would be interested in participating. Please find enclosed additional information about the project.

Enclosed with this letter is an assessment booklet to complete. All completed assessment forms are to be placed in the reply paid envelope and sent directly back to Disability Service Commission prior to your first group session. These forms provide the group leader a greater understanding of what is happening in your family in terms of your child's behaviour, your parenting style, consistency with your partner and how you are feeling. The information that you provide will help in tailoring the program to suit your needs. All information will remain strictly confidential. If you have any questions about the questionnaires or would like to discuss the research project in more detail you can call Nicole Skeats on 9266 3441/ 0413 994 592.

At the end of the program you will be asked to complete a similar set of questionnaires. This will allow us to evaluate whether the program has been beneficial to you and your child. Parent's feedback is greatly valued and is often used to improve and refine parenting programs. Parents completing post-workshop questionnaires will go in the chance to win one of 15 vouchers valued at $40. Parents will also have the opportunity to gain feedback regarding the results of the questionnaires.

In terms of group attendance please arrive 10 minutes prior to the scheduled time as each session will start and finish as scheduled. You may need to allow a few minutes for parking and making your way up to our centre. Please see the enclosed map and parking directions. I would like to remind you that children are not required to attend the group sessions, as we do not have child care facilities. If you have any questions or unable to attend, please contact _____ on _____.

I trust that you will find the Group Stepping Stones Triple P helpful for your family.

Kind regards

<name>

<position>

Note. Adapted from Sanders, M. R., Mazzucchelli, T. G., & Studman, L. J. (2005). *Facilitator's manual for group Stepping Stones Triple P*: The University of Queensland and Disability Services Commission of Western Australia.

G.2 Information Sheet

Stepping Stones Group Project

Information Sheet

What is this project about?

We are trying to learn more about why some parents/families experience more positive change following parent training programs than others. We want to learn more about the processes or the things that happen within parent training programs between parents and psychologists, which are likely to predict successful outcomes. Successful outcomes may include reduced childhood behaviour problems including reductions in tantrums, screaming, non-compliance or a combination of these factors. In addition parents may experience successful outcomes including reductions in stress, depression and increased positive parenting skills. It is important to understand these processes to ensure that parents/families are receiving the best possible assistance that is available.

What will the project involve?

Parents or primary caregivers will be required to attend the Stepping-Stones Positive Parenting Program, which includes five 2-hour sessions followed by four 15-20 minute follow up phone calls. The Stepping Stones Positive Parenting Program is internationally recognised and designed particularly for families with a child with a disability who is also experiencing some form of problem behaviour. The primary aims of the program include reducing behaviour problems and increasing child development. Parents attend the sessions without their children and receive a step by step workbook, which covers material from all the sessions. You will be taught strategies to increase desirable behaviour while at the same time learn how to effectively manage misbehaviour. All groups will be run by trained psychologists employed by Disability Service Commission.

As part of the program you will be required to fill in a several written questionnaires before you start the program and again after you have finished the program. The questionnaires focus on topics such as your child's emotional and behavioural health, depression, anxiety and stress in adults, the relationship between you and the psychologist and how satisfied you were with the program. To gain a snapshot of what occurs during the program all participants and psychologists will be videotaped as a group during the homework segment of each session.

Are there any Benefits?

Children may show reductions in their behaviour problems and parents may show improvements in their parenting skills and confidence levels. In addition parents may show reduced levels of stress, anxiety and depression. However, this is not guaranteed. Parents completing the questionnaires will go in the draw at the end of the program to win a $40 voucher of their choice. Options include Movie tickets, Myer Vouchers, Zoo Passes and Coles vouchers.

Are there any Risks?

No. This study has been approved by the Curtin University Human Research Ethics Committee. If needed, verification of approval can be obtained either by writing to the Curtin University Human Research Ethics Committee, c/- Office of Research and Development, Curtin University of Technology, GPO Box U1987, Perth, 6845 or by telephoning 9266 2784.

Parents usually gain many helpful tips and strategies following the completion of the Stepping-Stones Program. Parents also have the opportunity to meet other parents who are in

similar situations which offers a chance to connect and speak to someone who may be experiencing the same thing as you are.

What happens to the information collected?

All the information that is collected will remain completely confidential. All raw data including completed questionnaires, scoring sheets, videotapes and transcriptions will be stored in locked filing cabinets at Curtin University until the study is completed. Individual names will be substituted with number ID codes with the name-number codes being stored separately. No names or identifying information will appear in the final publication. Only group data will be published. No individual results will be released to a third party without your written permission. However, a summary of the assessment information will be provided to DSC to put in your child's file given one exists. If you do require copies of your information to be sent to other agencies then you will need to write a written request to the Nicole Skeats outlining your requirements.

What if I change my mind?

Your participation is entirely voluntary. You may choose to withdraw from this study at any time without affecting the services you receive from Disability Service Commission or the responsibilities of the researcher.

If you would like more information…

If you have any questions about the research project, the Stepping Stones Program or the questionnaires please contact Nicole Skeats (9266 3441) or Dr Clare Roberts (9266 7992). Alternatively, if you would like to speak to someone not directly involved in the study you may contact the Curtin University Human Research Ethics Committee Secretariat on 9266 2784.

I thank you for you time and look forward to hearing from you!

_____

Nicole Skeats
Clinical Masters/PhD Student
9266 3441/ 0413 994 592

G.3 Pre-group Questionnaires

G.3.1 Family Background Questionnaire

G.3.2 Developmental Behaviour Checklist

G.3.3 Depression Anxiety Stress Scale

G.3.1 Family Background Questionnaire

G.3.2 Developmental Behaviour Checklist

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G.3.3 Depression Anxiety Stress Scale

Note. Available from Lovibond, S. H., & Lovibond, P. F. (2002). *Manual for the Depression Anxiety Stress Scales* (2nd ed.). Sydney, NSW: Psychology Foundation of Australia or http: //www2.psy.unsw.edu.au/groups/dass//.

Appendix H

CONSENT FORM

Stepping Stones Positive Parenting Program Consent Form

Please decide whether you want to be involved in the current Stepping Stones Research Project which is outlined in the Information Sheet provided to you or if you just want to take part in the Stepping Stones Program and not be included in the research project. Please then print your name in the appropriate section and sign the form. Only one section should be signed. This decision is entirely voluntary and will not affect the services you receive from Disability Service Commission.

Stepping Stones Group and Research Participation Consent Form

1. I have read the information sheet provided to me about the Stepping-Stones Group Project. I fully understand the nature, purpose and procedure of the study and I have been given the opportunity to ask any questions as required.
2. I understand that participating in the research may not result in any direct benefit to myself and that I may withdraw from the study at any time without affecting my rights or the responsibilities of the researchers.
3. I understand that all information collected including questionnaires and videotapes will remain completely confidential and that no personal information will appear in the final publication.
5. I agree to be videotaped as part of the Stepping-Stones group.
6. I understand that video recordings may be seen / heard by staff of Disability Service Commission, and psychology students under their supervision for use in peer supervision.
7. I understand that the videotapes will be kept until the completion of the research project.
8. I agree to be part of this study as it has been outlined to me.

I …….. give my consent to participate in the Stepping Stones Group and the Research Project.

Parent / Guardian's Name:……..

Child's Name:……..

Address:……

……Post Code:…….

Home Phone Number:…….Mobile Number:……...

Work Phone Number:……...

Email Address: …….

Parent / Guardian's Signature: …….. Date:……

Or

Stepping Stones Group Only Consent Form / No Research

As part of the Stepping Stones Group program we ask that some of the sessions are audio/ video recorded. The recordings may be used in the following ways;

a) To assist in the understanding of your child's behaviour and the tailoring of the program to your family's needs.
b) To allow your practitioner to check their own performance in delivering the program and receive feedback from his or her peers.

I understand that video recordings may be seen / heard by staff of Disability Service Commission, and psychology students under their supervision.

If you are not participating in the Research Project described above, recordings will be erased within 12 months of the time they were recorded.

I …….. give my consent to participate in the Stepping Stones Group only.

Parent / Guardian's Name:……

Child's Name:……...

Address:……

……Post Code:……

Home Phone Number:…….Mobile Number:……

Work Phone Number:……

Email Address: ……

Parent / Guardian's Signature: …….. Date:……

Appendix I

POST-GROUP INFORMATION PACK

I.1 Post-group letter

I.2 Post-group Questionnaires

I.2.1 Client Satisfaction Questionnaire

I.1 Post-test letter

Curtin
University of Technology

Dear Parent

Thank you for agreeing to be part of this valuable research. Attached to this letter are the same questionnaires that you would have filled out earlier in the program. However, now that you have completed the Stepping-Stones Group Program it is important to get your feedback about the program and it's delivery. Parent's suggestions and comments are highly valued and are often used to improve the program. Completed post-test measures also provide information on how effective the program has been for you and your family including information on how both your childs behaviour and your stress levels have changed between the start of the program and now.

By completing the post-test measures you have the chance to win a voucher of your choice to the value of $40.00. Choices include Myer, Bunnings, or Coles vouchers, movie tickets or zoo passes. Interested parents can also contact Nicole Skeats to obtain a summary of their assessment results.

Post-test measures should be completed within one week of receiving them and returned to Curtin University via the pre-paid envelope. It is important for you to be as honest as possible and answer all questions on every page when completing these questionnaires. If you are having any difficulties or would like to ask any questions about the measures you can contact **Nicole Skeats on 9266 3441** for further information.

Thank you for your time!

Kind regards

Nicole Skeats
Curtin University of Technology
School of Psychology
9266 3441

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I.2 Post-test Questionnaires

I.2.1 Client Satisfaction Questionnaire

I.2.1 Client Satisfaction Questionnaire

Appendix J

Reminder Letter

Dear Parent

Thank you for participating in the Stepping Stones Program. Now that the program is over it is time to complete the post-test assessment booklet. A week ago a post-test assessment booklet was given to you to complete. This booklet includes questionnaires about your child's behaviour, parenting and your own stress levels. Unfortunately according to our records we have not yet received your completed booklet. I would like to remind you that these questionnaires are very important to gather information on how both you and your child have changed since the start of the program and to see if the program is effective.

Please return your completed assessment booklet directly to Curtin University by placing it in the reply paid envelope provided.

Remember you have the chance to win a $40.00 voucher if you complete the assessment booklet. Also a brief summary of your results can be provided to you on request after completing the post-test assessment booklet.

If you have any questions or have lost your assessment booklet please call **Nicole Skeats on 9266 3441** for further assistance.

Thank you for you time and good luck in winning the voucher!

Kind regards

Nicole Skeats
PhD Student
9266 3441

Appendix K

K.1 Thank you letter

K.2 Example Parent Report

K.1 Thank you letter

Dear Parent

Thank you for your support of the *Stepping-Stones Positive Parenting Program*. Your time and effort in completing the questionnaires is greatly appreciated. This information will enable us to adjust and improve the program to better suit the needs of families of children with disabilities. I hope you enjoyed the program and learnt lots of valuable skills.

Best Wishes

Nicole Skeats
PhD Student
School of Psychology
Curtin University

K.2 Example Parent Report

DISABILITY SERVICES COMMISSION
METROPOLITAN SERVICES C0-0RDINATION
INDIVIDUAL AND FAMILY SUPPORT
PH: 9301 3800

Report on completion of the Stepping Stones Positive Parenting Group August 2005

This report is strictly confidential and cannot be released without permission from the authors

NAME OF CAREGIVER:
RELATIONSHIP TO CHILD: Mother
NAME OF CHILD:
DOB:
ADDRESS:

Participation: XXX attended all 6-group sessions and participated in one telephone follow up.

1. **Group Content included:**

Positive Parenting	• Introduction to positive parenting • Goal setting • Keeping track of behaviour
Developing a positive relationship and encouraging desirable behaviour	• spending quality time with children • communicating with your child • showing affection using descriptive praise • giving attention • providing other rewards • providing engaging activities • setting up activity schedules • Using behaviour charts
Teaching new skills and behaviours and managing misbehaviour	• setting a good example • using physical guidance • using incidental teaching • using ask, say, do • teaching backwards • using behaviour charts • using diversion to another activity • establishing clear ground rules • using directed discussion for rule breaking • using planned ignoring for minor problem behaviour • giving clear, calm instructions • teaching children to communicate what they want
Managing misbehaviour (Continued)	• backing up instruction with logical consequences • blocking

	• using brief interruption • using quiet time for misbehaviour • using time-out for serious misbehaviour
Planning ahead	• preparing in advance • talking about rules • selecting engaging activities • encouraging appropriate behaviour • using consequences for misbehaviour • reviewing how things went

2. Phone Follow-up:

- Session 6: Implementing parenting routines 1
- Session 7: Implementing parenting routines 2
- Session 8: Implementing parenting routines 3
- Session 9: Program closure

3. Pre/post group assessment:

The following assessments were completed by XXX pre and post-group:

Developmental Behaviour Checklist (Parent/Carer Version and Teacher Version) (Einfeld & Tonge, 1989).
This is a well-established instrument that measures the severity of different types of behaviours in six subscales: disruptive; self-absorbed; communication disturbance; anxiety; autistic relating; and antisocial behaviour. Parents complete it independently and scores are compared to normative samples of children with and without disabilities, giving percentile rankings and clinical ranges. Teachers complete the teacher version and consider whether specific behaviours have occured at the school/preschool setting over the past two months.

Parenting Scale (Arnold, O'Leary, Wolff and Acker, 1993).
This questinnaire measures three styles of parenting referred to as: Laxness (permission discipline); Over-reactivity (authoritarian discipline); and Verbosity (long reprimands and explanations for misbehavior). The scale discriminates between families receiving clinical assistance and those who do not require it.

Parent Problem Checklist (Dadds & Powell, 1991).
This measures inter-parental conflict over child-rearing. It rates parents' ability to cooperate and work together in family management. It covers issues such as: open conflict of child-rearing and whether parents undermine each others relationship with their child.

Depression Anxiety Stress Scale (Lovibond & Lovibond, 1995).
This measures depression, anxiety and stress in parents. Levels of condition are reported as: (0) normal; (1) mild; (2) moderate; (3) severe; and (4) extremely severe.

Client Satisfaction Questionnaire (adapted from Eyberg, 1993) This measures consumer satisfaction with parent training programes. It covers: the quality of service provide; how well the program met parent needs; whether it increased or decreased child's disruptive behaviour; and whether the parent would recommend the program to others.

Prior to intervention, XXX rated X's disruptive/antisocial, self-absorbed, social relating, anxiety and total behaviour problem sub-scale scores in the clinical range. Following intervention, the scores for the disruptive/antisocial scale, self-absorbed scale and total behaviour problem scale fell but remained within the clinical range. However, X's score for the social relating scale fell into the normal range following the intervention. X's score for communication disturbance remained in the normal range following the intervention. Despite these changes X's score for anxiety remained the same after the intervention. XX scores on the Depression, Anxiety and Stress Scale also indicated some improvement in parental adjustment following the intervention.

Nicole Skeats
Combined Clinical/Health Masters PhD student

SIGNATURE: ……

DATE:……

Stepping Stones Facilitator

SIGANTURE: ……..

DATE: ……..

Appendix L

Example of Therapist Report

1. Introduction

This report presents the results of the evaluation of the *Stepping-Stones* group sessions conducted in October and November by psychologist _____ and provides a summary of the thoughts and experiences of the participants.

2. Participants

A total of 9 participants attended the sessions on a regular basis. However, only 7 participants completed pre and post workshop evaluations.

3. Results

3.1 Results of the Working Alliance Inventory (WAI)

The Working Alliance inventory is designed to examine the working alliance between the therapist and client and examines 3 main components including bond, goals and tasks. Five participants completed a client version of the WAI during session three. The results were as follows;

- 100% of participants rated the question "I feel uncomfortable with my group leader" as "not at all true".
- 60% of participants rated the question "I am worried about the outcomes of these sessions" as "not at all true".
- 80% of participants rated the question "The group leader and I agree about the things I need to do to improve my situation" as "moderately true" to "very true".
- 100% of participants rated the question "What I am doing in the group gives me news ways of looking at the problem" as "moderately true" to "considerably true".
- 100% of participants rated the question "My group leader and I understand each other" as "moderately true" to "very true".
- 100% of participants rated the question "The group leader perceives accurately what my goals are" as "considerably true" to "very true".
- 40% of participants rated the question "I find what I am doing in sessions confusing" as "slightly true".
- 100% of participants rated the question "I believe my group leader likes me" as "moderately true" to "very true".
- 80% of participants rated the question "I wish my group leader and I could clarify our sessions" as "not at all true".
- 100% of participants rated the question "I disagree with my group leader about what I ought to get out of therapy" as "not at all true".
- 100% of participants rated the question "I believe the time my group leader and I are spending together is not spent efficiently" as "not at all true".
- 100% of participants rated the question "My group leader does not understand what I am trying to accomplish in the group" as "not at all true".
- 100% of participants rated the question "I am clear on what my responsibilities are in the group" as "considerably true" to "very true".
- 80% of participants rated the question "The goals of these sessions are important to me" as "very true".
- 60% of participants rated the question "I find what my group leader and I are doing in the group is unrelated to my concerns" as "not at all true".

- 80% of participants rated the question “I feel that the things that I do in the group will help me accomplish the changes that I want” as “considerably true”.
- 80% of participants rated the question “I believe my group leader is genuinely concerned for my welfare” as “considerably true” to “very true”.
- 100% of participants rated the question “I am clear as to what my group leader wants me to do in these sessions” as “considerably true” to “very true”.
- 80% of participants rated the question “My group leader and I respect each other” as “very true”.
- 80% of participants rated the question “I feel that my group leader is not totally honest about his/her feelings toward me” as “not at all true”.
- 100% of participants rated the question “I am confident in my group leader’s ability to help me” as “considerably true” to “very true”.
- 100% of participants rated the question “My group leader and I are working towards mutually agreed upon goals” as “considerably true” to very true”.
- 100% of participants rated the question “I feel that my group leader appreciates me” as “considerably true” to “very true”.
- 40% of participants rated the question “We agree on what is important for me to work on” as “very true”.
- 100% of participants rated the question “As a result of these sessions I am clearer as to how I might be able to change” as “moderately true” to “considerably true”.
- 60% of participants rated the question “My group leader and I trust one another” as “very true”.
- 100% of participants rated the question “My group leader and I have different ideas on what the problems are” as “not at all true”.
- 80% of participants rated the question “My relationship with my group leader is very important to me” as “moderately true” to “very true”.
- 80% of participants rated the question “I have the feeling that if I say or do the wrong things, my group leader will stop working with me” as “not at all true”.
- 60% of participants rated the question “My group leader and I collaborate on setting goals for the group” as “considerably true”.
- 100% of participants rated the question “I am frustrated by the things I am doing in the group” as “not at all true”.
- 60% of participants rated the question “We have established a good understanding of the kind of changes that would be good for my family” as “considerably true” to “very true”.
- 80% of participants rated the question “The things that my group leader is asking me to do don’t make sense” as “not at all true”.
- 100% of participants rated the question “I don’t know what to expect as a result of being in the group” as “not at all true”.
- 80% of participants rated the question “I believe the way we are working with the problem is correct” as “considerably true” to “very true”.
- 100% of participants rated the question “I feel my group leader cares about me even when I do things that s/he does not approve of as “moderately true” to “very true”.

3.2 Results of the Client Satisfaction Questionnaire

Overall 100% of participants rated the quality of the service as “good” to “excellent” and 83.3% participants reported being “satisfied” to “very satisfied” with the program. All participants received the help that they wanted. One hundred percent of participants stated that the program met a few to almost all their child’s needs and 67% of participants reported that the program met most to almost all their own needs. Eighty-four percent of participants were “satisfied” to “very satisfied” with the amount of help they received from

the Stepping Stones Program. All participants reported that the program "helped somewhat" to "a great deal" in dealing more effectively with their child's behaviour. All participants reported that the program helped "somewhat" to a "great deal" with problems that arose in the family. Fifty percent of participants reported that their relationship with their partner improved as a result of the program. One hundred percent of participants reported that the program helped develop skills that could be applied to other family members. One hundred percent of participants reported some level of improvement in their child's behaviour at the end of the program and 84% of participants reported being slightly satisfied (33%) to satisfied (50%) with their child's progress.

Complied by Nicole Skeats (Psychology PhD Student)

Appendix M

Manual and Protocol for using the Therapy Process Code: A Multidimensional System for Observing Therapist and Client Interactions

Note. Adapted from Chamberlain, P., Davis, J. P., Forgatch, M. S., Frey, J., Patterson, G. R., Ray, J., et al. (1986). *The Therapy Process Code: A multidimensional system for observing therapist and client interaction*, Eugene, Oregon: Oregon Social Learning Centre.